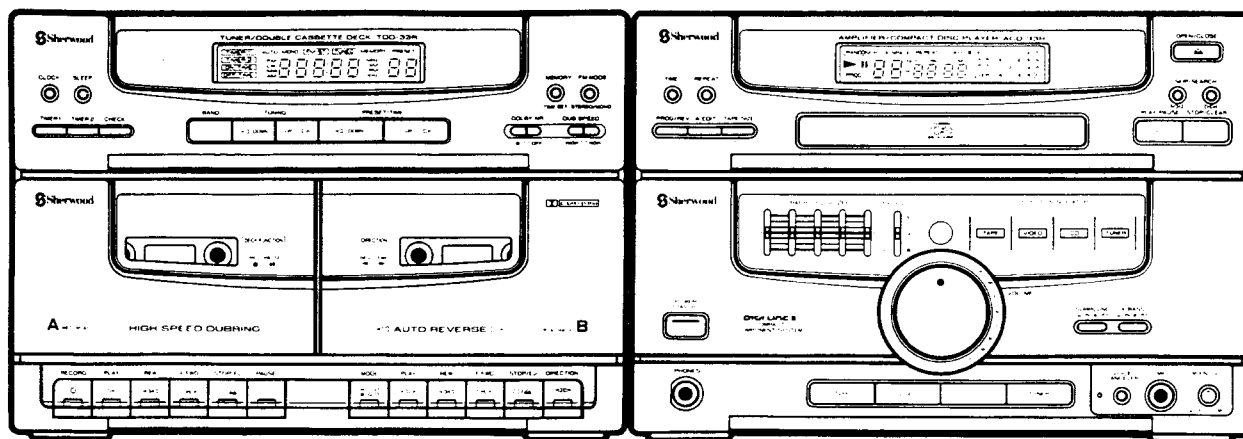


SERVICE MANUAL

P-33R (ACD-33R/TDD-33R)

AMP, CDP/ TUNER, DECK



ACD-33R(AMP,CDP)

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TDD-33R(TUNER,DECK)

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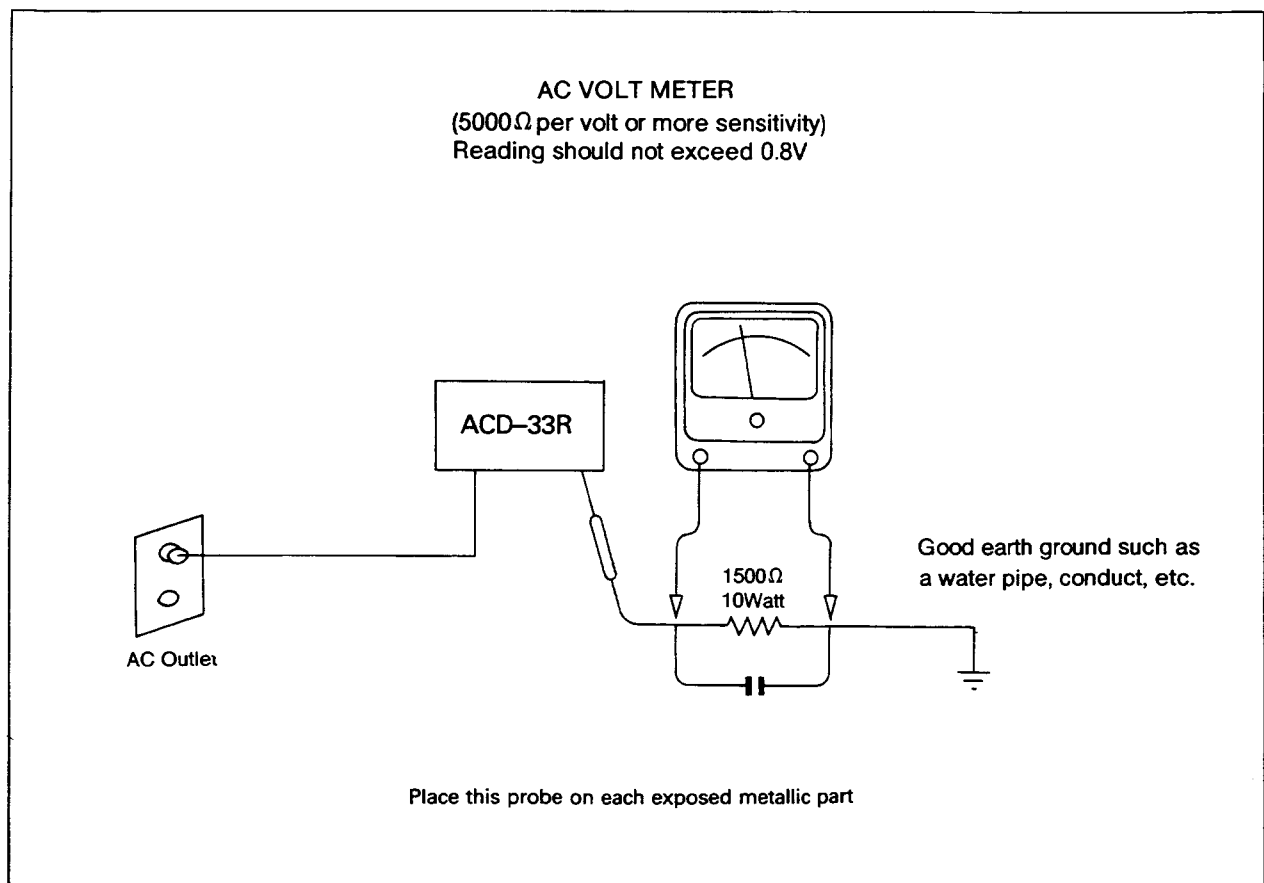
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Safety Precaution ACD-33R

WARNING

Service should not be attempted by anyone unfamiliar with the necessary precautions on this player. The following precautions are necessary during servicing.

1. Many electrical and mechanical parts in this player have special characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by a \triangle in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.
2. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as terminals, screwheads, metal overlays, etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a 120V AC outlet (120V Version only). (Do not use a line isolation transformer during this check.) Use an AC voltmeter having 5000Ω per volt or more sensitivity in the following manner: Connect a 1500Ω 10watt resistor paralleled by a $0.15\mu F$ 150V AC capacitor, between a known good earth ground (water pipe, conduct, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500Ω resistor and $0.15\mu F$ capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.3 volts RMS. This corresponds to 0.2mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



Specifications ACD-33R(AMP,CDP)

Amplifier Section

Power output / ch,

Min RMS for 1kHz with no more than 0.3% THD.

into 6 ohms 25W

Input Sensitivity for 25W 6Ω at 1kHz

Video 150±30mV

MIC 2±1mV

Signal to Noise ratio, IHF a wtd & EQ flat;

Video 75dB

X-Bass 80Hz, Video at 1W, 80Hz +8±2dB

Surround, 1ch Input, Video at 1W +6±2dB

Frequency Response, Video at 1W, -3dB 40~20,000Hz

Graphic EQ Control, 60Hz, 250Hz, 1kHz, 4kHz, 16kHz ±8±2dB

Compact Disk Player Section

Frequency Response

20~20,000Hz ±1.0dB

Signal to Noise Ratio, weighted A 85dB

Dynamic Range, weighted A 85dB

Distortion

1kHz / 0dB 0.1%

Channel Separation, Selective

1kHz 75dB

Channel Unbalance

1kHz ±1.0dB

Access time

Track → Track 1.5 sec.

Close → Music 8.0 sec.

Disc Defects

Black DOT 600 μm

Interrupt 600 μm

Fingerprint All μm

Power Consumption 140W

Power Requirements;

A: 120V 60Hz for USA / Canadian version

B: 120 / 220V 50 / 60Hz for multi-voltage version (switchable)

C: 230V 50Hz for General European version

D: 230V 50Hz for Germanian & Italian version

E: 240V 50Hz for British & Australian version

F: 230V 50Hz for Swiss & Scandinavian version

Dimensions 267(W)×188(H)×250(D)mm

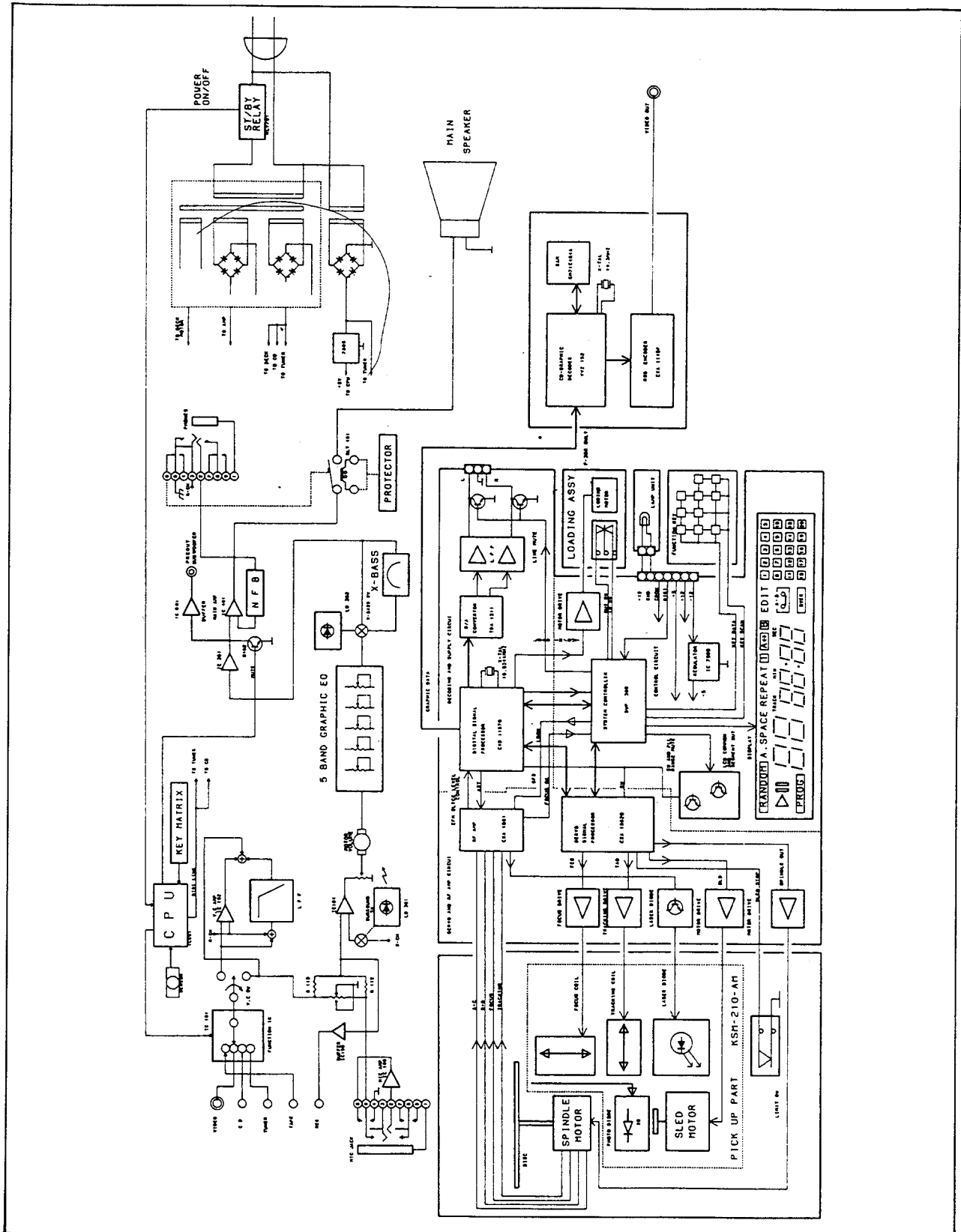
10.5(W)×7.4(H)×9.8(D)inch

Weight(Net) 6.7Kg(14lbs, 11.8ozs)

Note : Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the European Standard information on regional circuit modification through use of alternate schematic diagram, and information on regional component variations though use of parts list. Design and Specifications subject to change without notice for improvement.

Block Diagram ACD-33R

Model No. : ACD-33R



Alignment Procedures ACD-33R(CDP)

1. Before Starting Adjustments

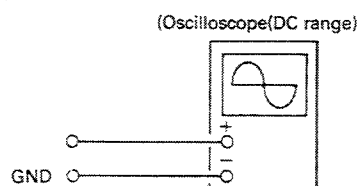
- First, open the disc tray.
- Make the adjustment with a numeric order.
- Use the dualtrace oscilloscope with high impedance (more than 10M ohm).
- Test Disc : SONY TEDS-7, SONY YEDS-4
- How to enter into the TEST MODE.
 - 1) Power off (CD Function)
 - 2) Earth R171 (TEST MODE) on the Main P.C. Board.
 - 3) Power on.
 - 4) Remove the earth connection from R171
 - 5) Then, all segments appears in the display. When you press the PLAY button by turns, the TEST MODE continuously changes "TEST MODE 1" → "TEST MODE 2" → "TEST MODE 3"
- Tentative Setting of Volume
 - Set the semi-fixed resistance tentatively as follows.

| | |
|----------------------|-----------------|
| VR101 (EF. Balance) | Center Position |
| VR102 (F. Bias) | Center Position |
| VR105 (PLL Free Run) | Center Position |

2. RF PLL Free Run Adjustments

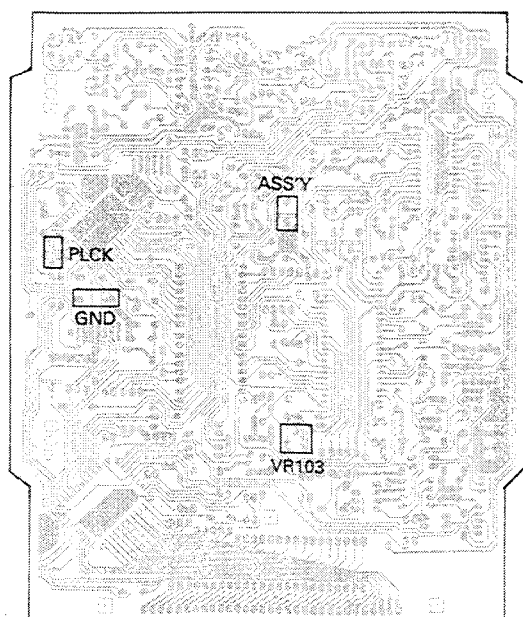
- 1) Enter into the TEST MODE1.
- 2) Earth P03 (J193) (Ass'y) on the Main P.C. Board.
- 3) Connect the frequency counter to between P08 (J192) (PLCK) and P01 (J224) (GND) by using a probe.
- 4) Adjust VR103 (PLL) with a plastic screwdriver for getting a indication in the range of 4.3218 MHz on the frequency counter.
- 5) Remove the earth connection from P03 (J193) (Ass'y)
- 6) Set the player to TEST MODE3, and confirm the PLL frequency is 4.3218 MHz.

3. Focus Bias Adjustments



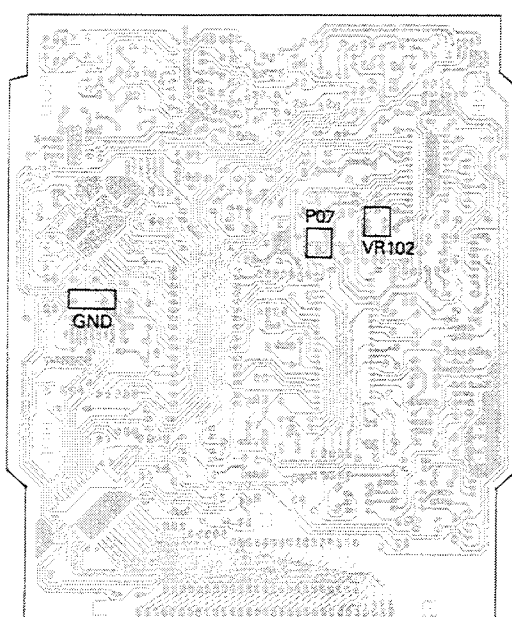
- 1) Enter into the TEST MODE1.
- 2) Connect an oscilloscope between P07 (R155) (FE. Focus Error) and P01 (J224) (GND) on the Main P.C. Board.
- 3) Adjust VR102 (F. Bias) so that the focus error signal becomes $0V \pm 10mV$ on the oscilloscope.

Adjusting Part : Main P.C. Board (RF PLL Free Run)



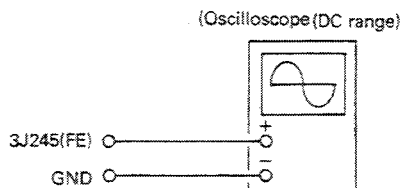
BOTTOM VIEW (Front Side)

Adjusting Part : Main P.C. Board (Focus Bias)

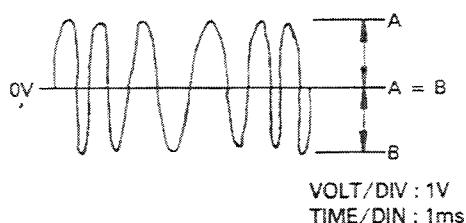


BOTTOM VIEW (Front Side)

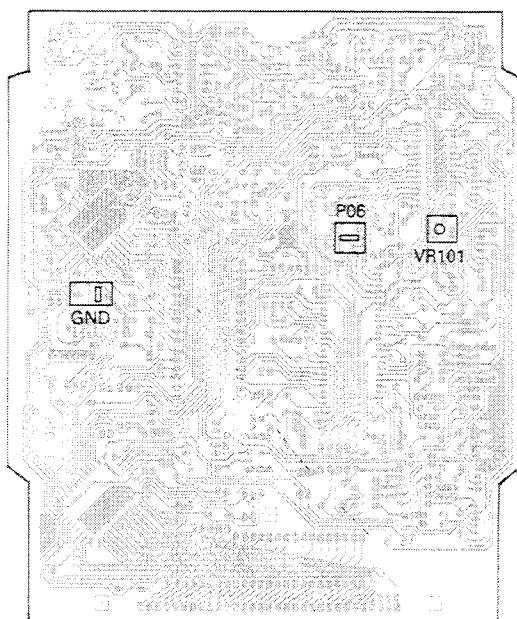
4. EF Balance(Tracking Bias)Adjustments



- 1) Set the player to the TEST MODE2.
- 2) Connect an oscilloscope between P06(R153) (TE.Tracking error)and P01(J224)(GND) on the Main P.C.Board.
- 3) Turn a disc softly with a finger and adjust VR 101(EF.Balance)so that the center of the TE(Tracking error)signal sets on 0V DC as like a following figure.

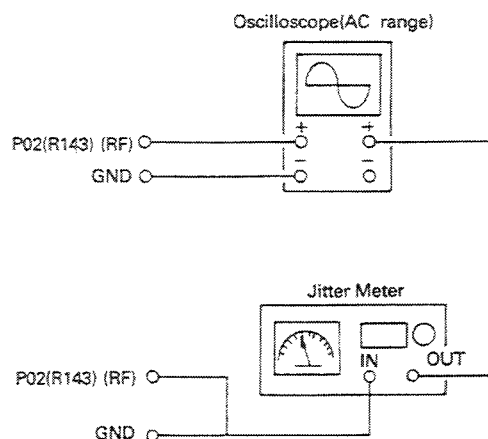


Adjusting Part : Main P.C. Board(EF Balance)



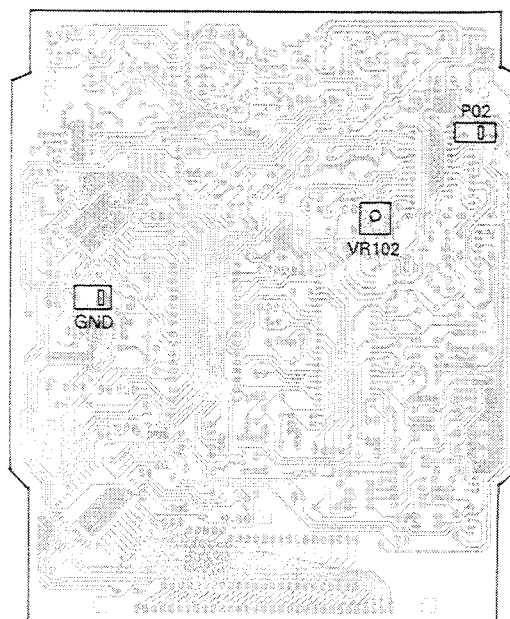
BOTTOM VIEW(Front Side)

5. Adjustment of Jitter Level



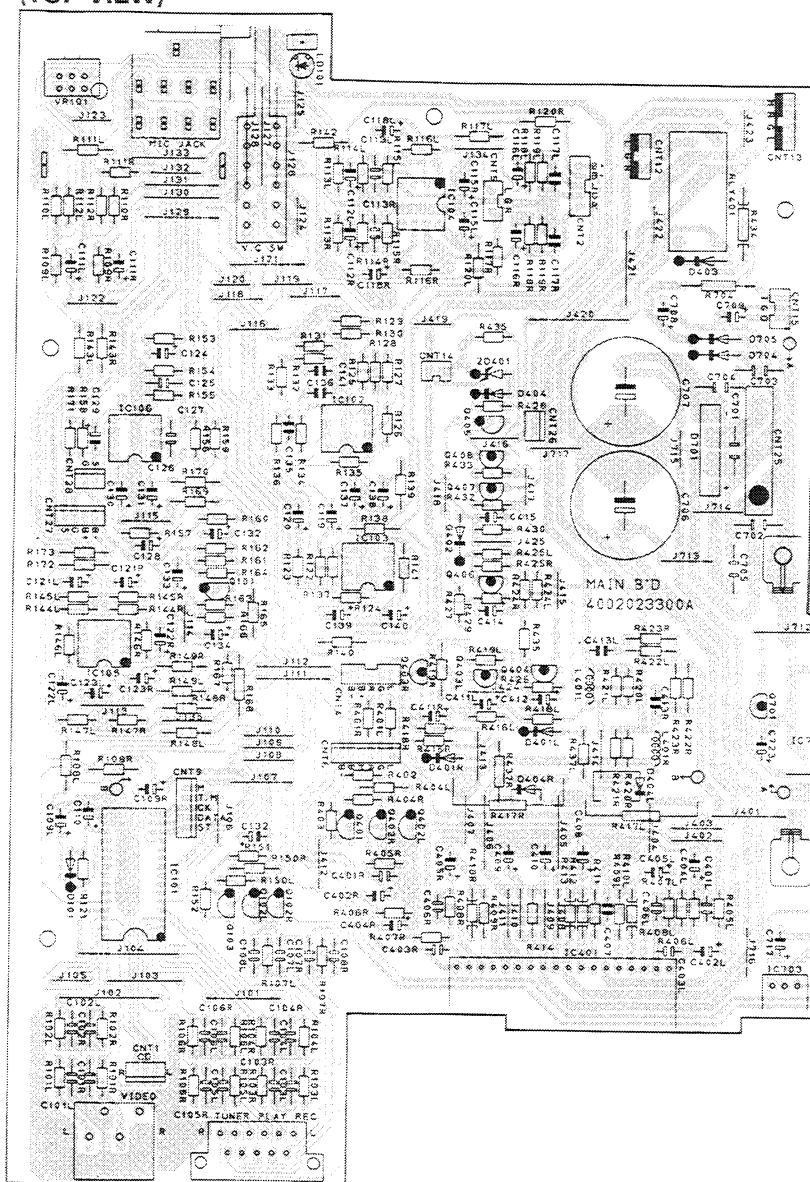
- 1) Set the player to the TEST MODE3.
- 2) Connect the oscilloscope and jitter meter as like the upper figure.
- 3) Adjust VR102(F.Bias)so that the level of jitter on the jitter meter becomes the least value. Then a RF waveform will get with the largest amplitude and a sharp waveform on the oscilloscope.

Adjusting Part : Main P.C. Board(Jitter Level)

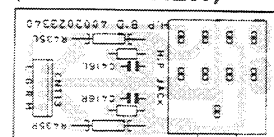
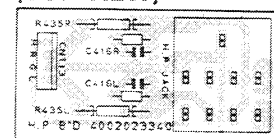


BOTTOM VIEW(Front Side)

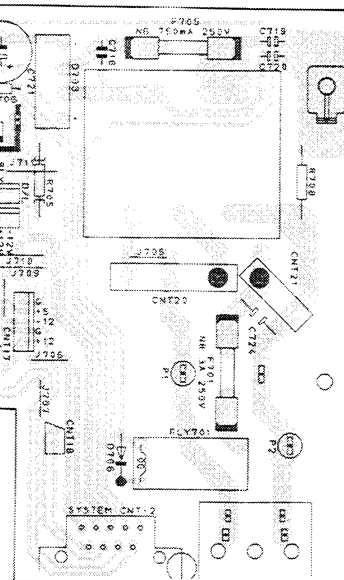
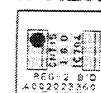
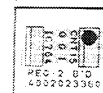
(TOP VIEW)



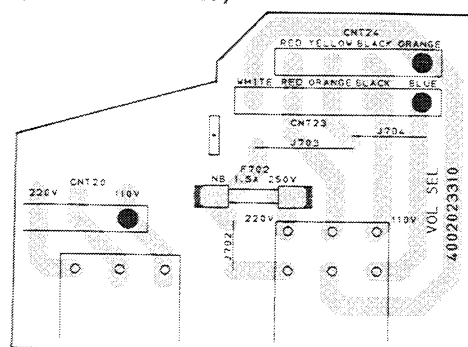
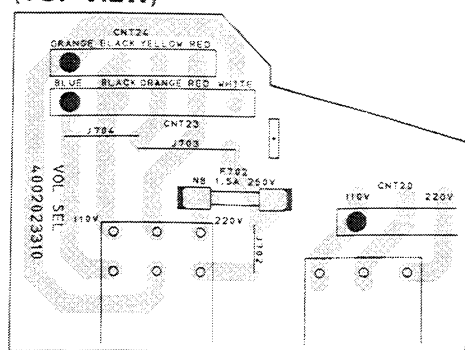
(BOTTOM VIEW)



REG-2 P.C.BOARD
(TOP VIEW) (BOTTOM VIEW)

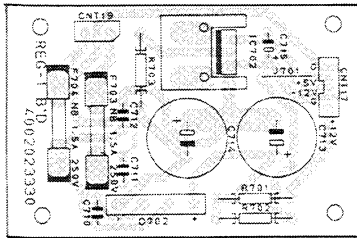


(BOTTOM VIEW)

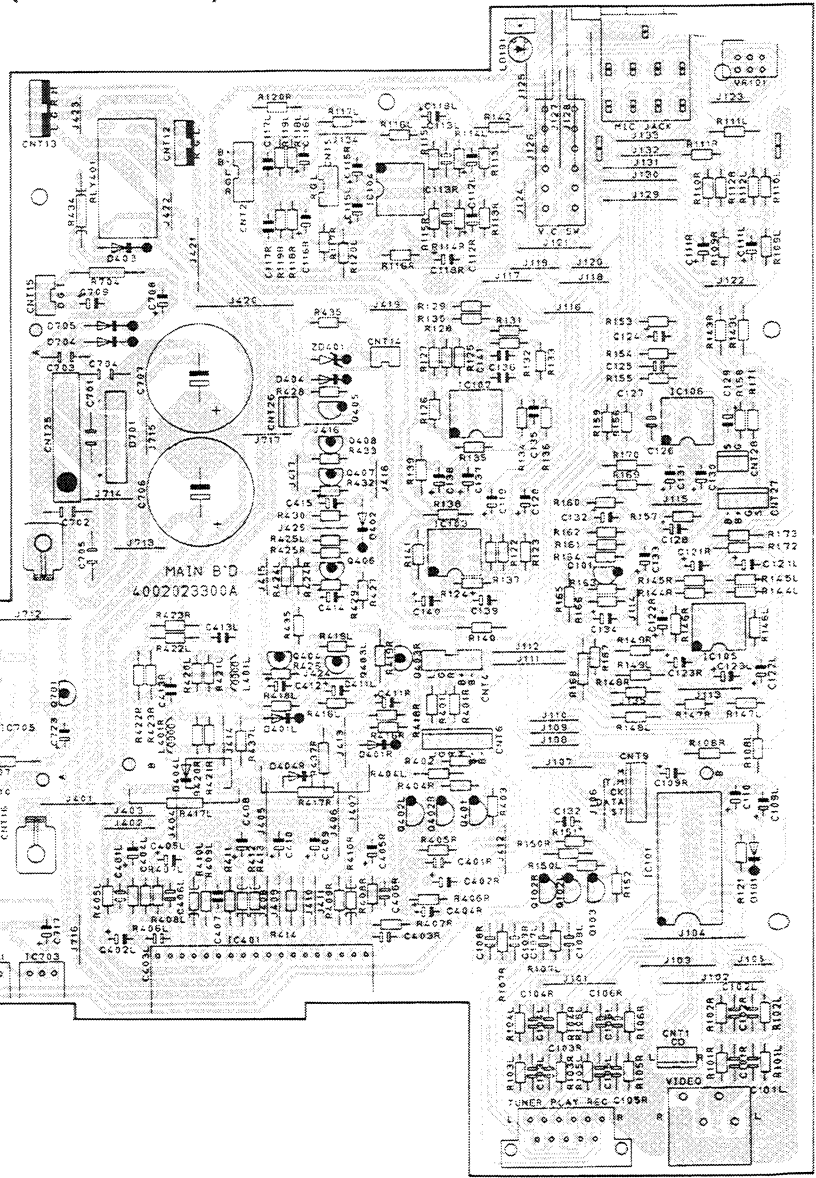
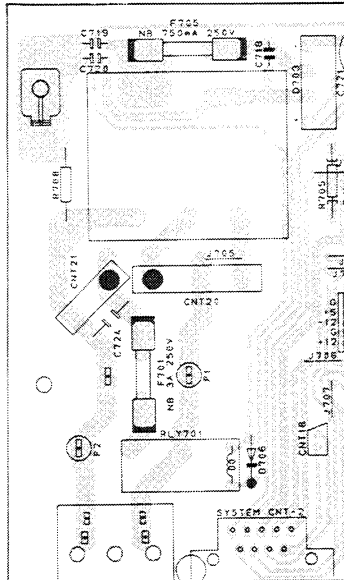
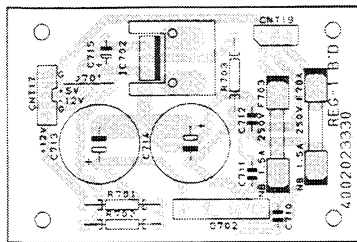


MAIN P.C.BOARD (BOTTOM VIEW)

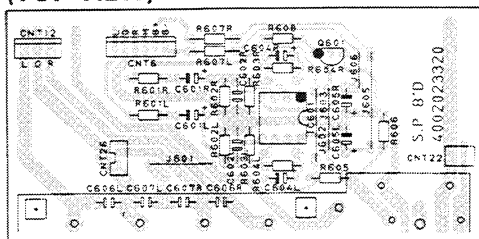
REG-1 P.C.BOARD (TOP VIEW)



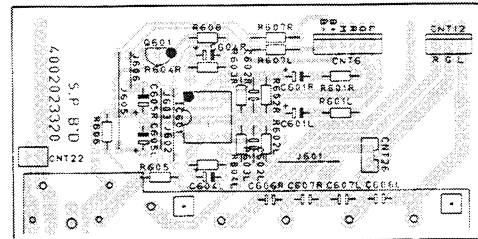
(BOTTOM VIEW)



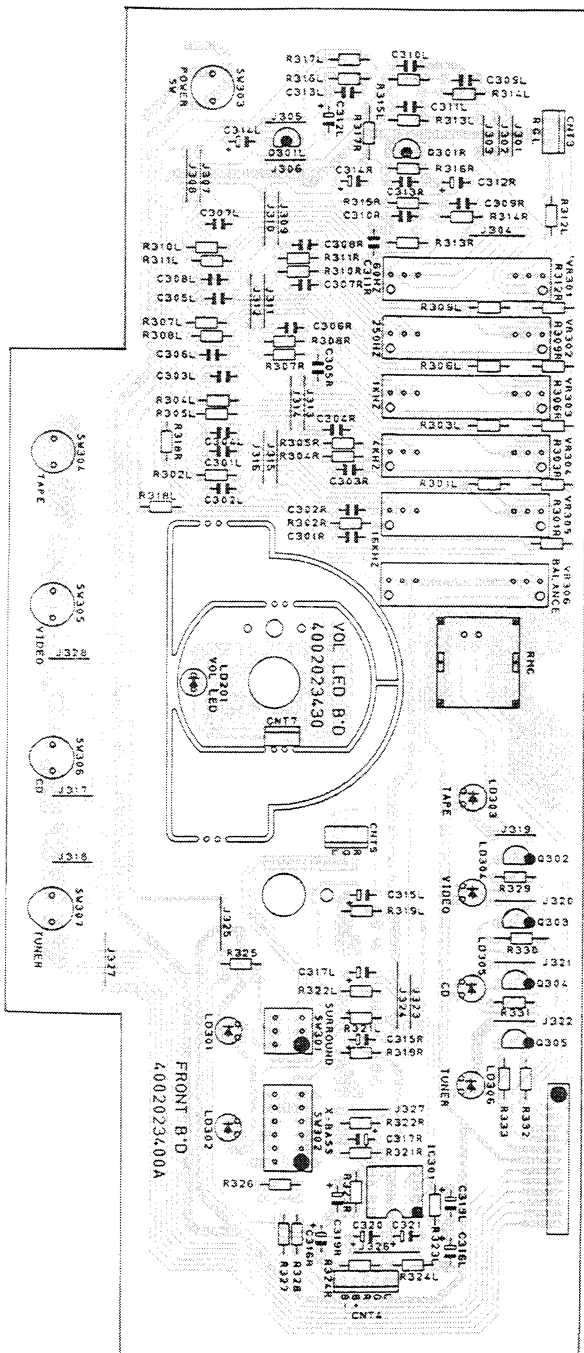
S.P. P.C.BOARD (TOP VIEW)



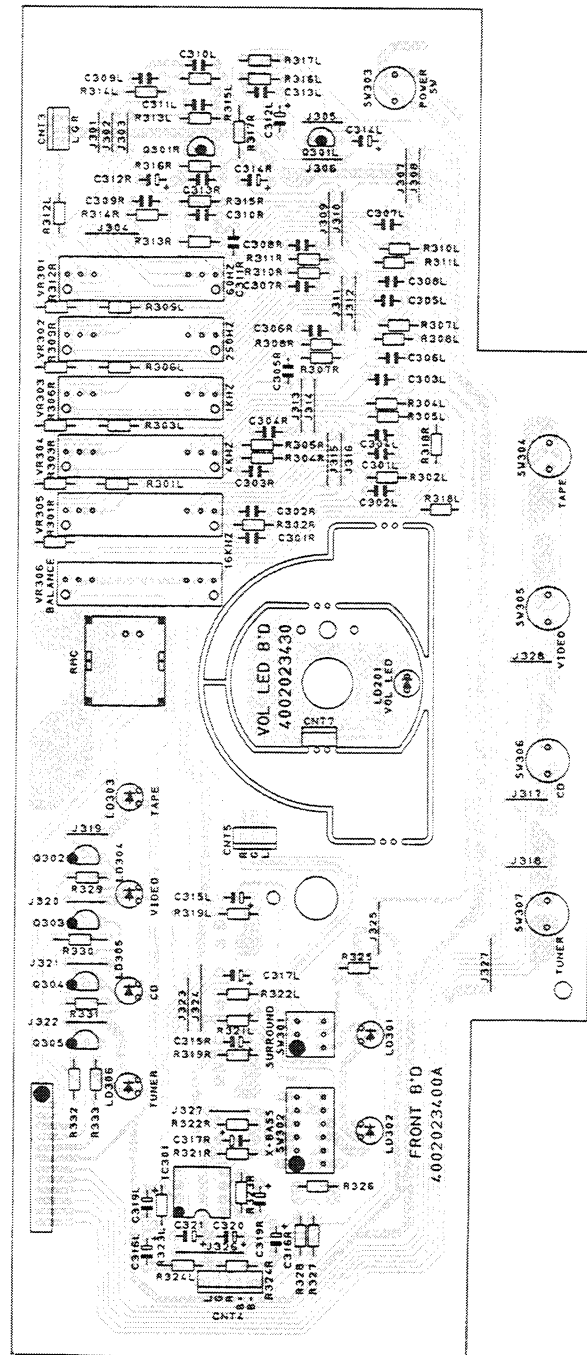
(BOTTOM VIEW)



FRONT P.C.BOARD (AMP)
(TOP VIEW)












(BOTTOM VIEW)



CRTZ
R431


 R431
 7051370K B'C
 4007022256


 CN106
 LAMP B'D 4002023220

FRONT B'D
400203210

SV006 OPEN/CLOSE

SV007

SV008

SV009

SV100

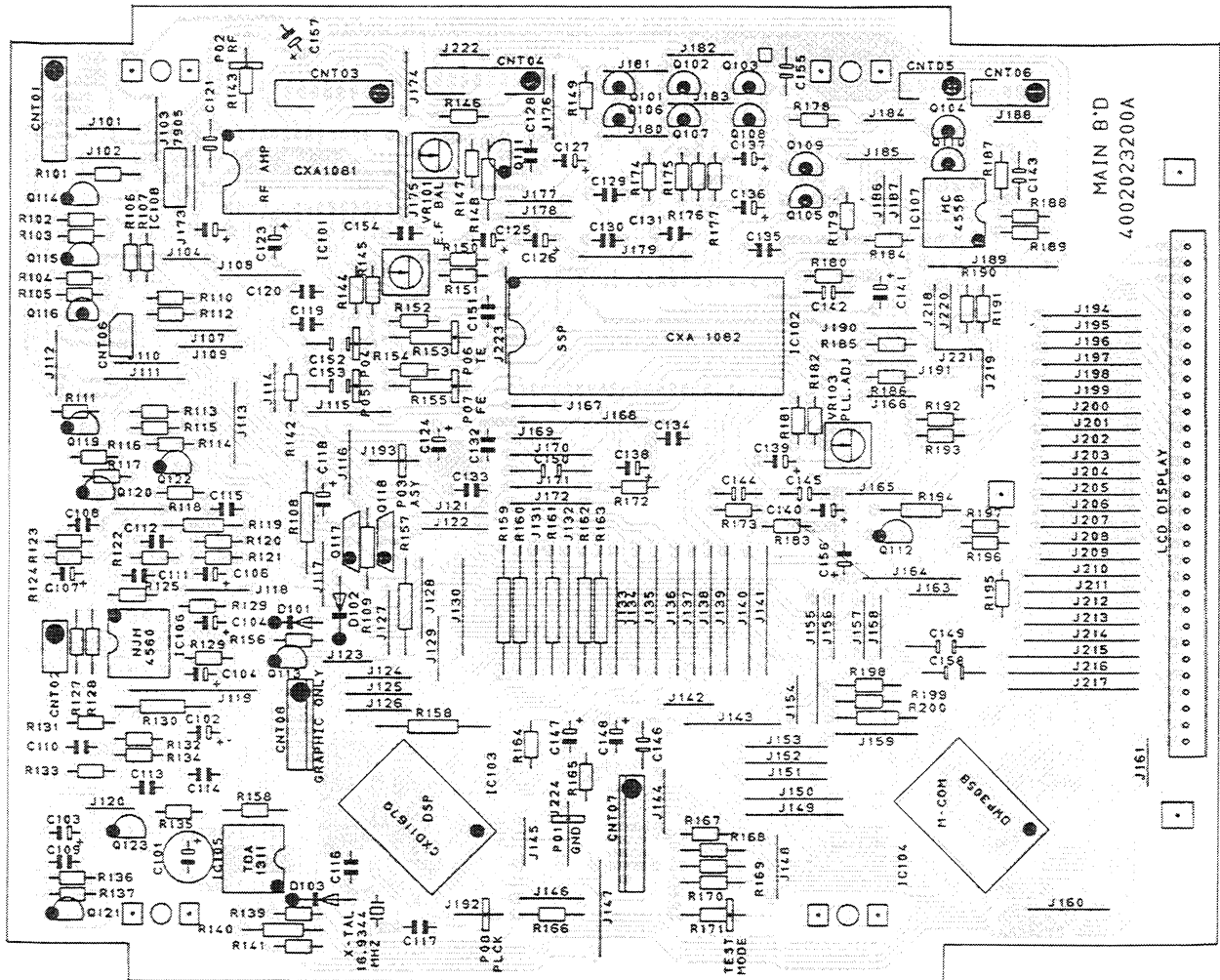
STOP/PAUSE

PLAY/PAUSE

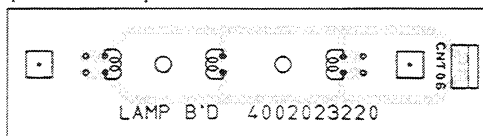
STOP/CLEAR

Diagram of the front view of the control panel. It features four circular buttons arranged in a 2x2 grid. The top-left button is labeled 'OPEN', the top-right 'CLOSE', the bottom-left 'STOP/CLEAN', and the bottom-right 'PLAY/PAUSE'. Below these buttons is a rectangular digital display showing '4002023210'. To the right of the display is a small rectangular button labeled 'FRONT B'D'. A power button is located at the bottom center. The panel is labeled 'S'06' at the top and 'S'07' on the right side.

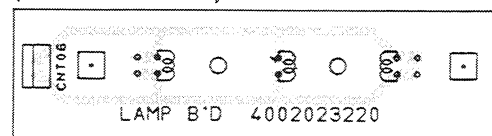
(BOTTOM VIEW)



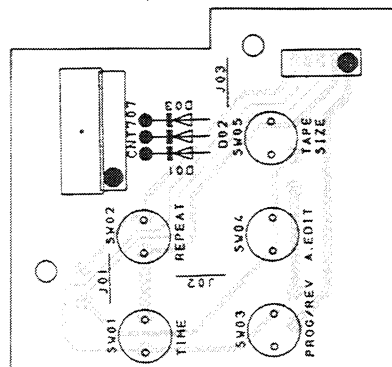
LAMP P.C. BOARD
(TOP VIEW)



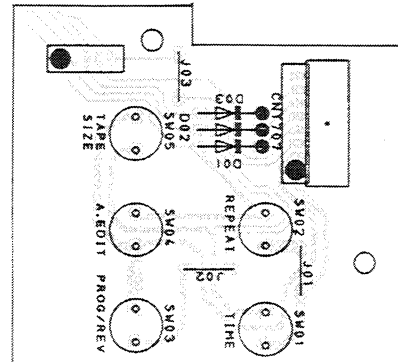
(BOTTOM VIEW)



(TOP VIEW)



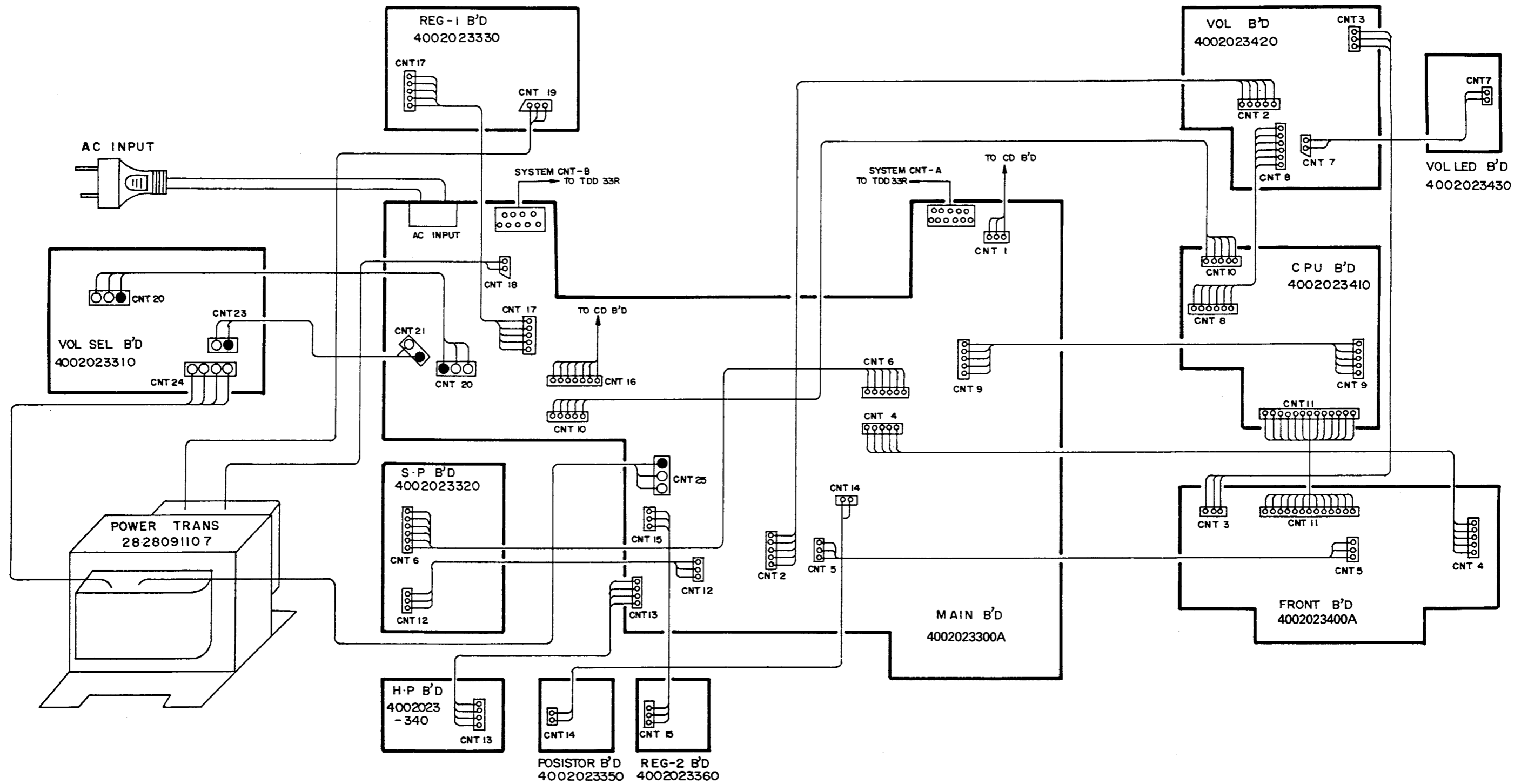
(BOTTOM VIEW)



[illegible]

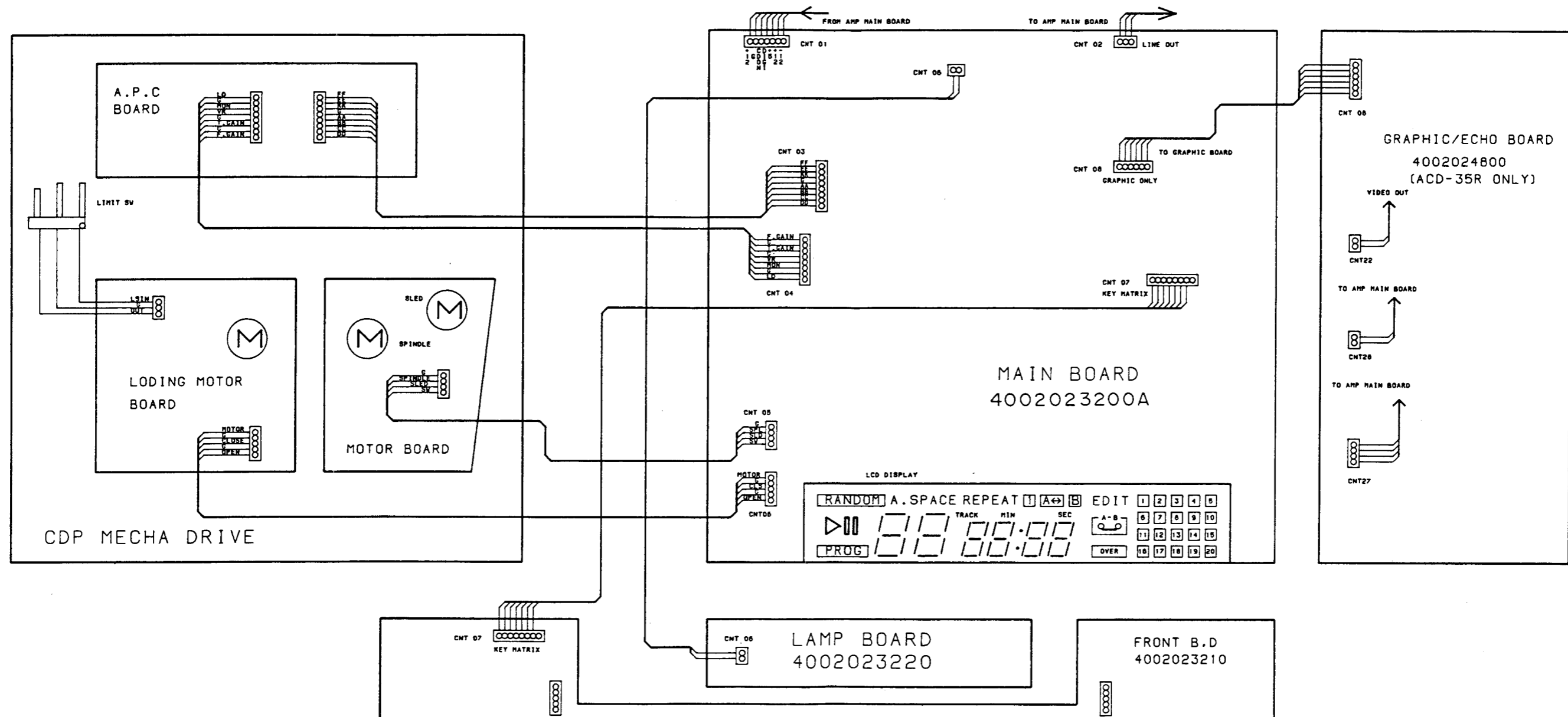
Wiring Diagram (I) ACD-33R(AMP)

Model No. : ACD-33R



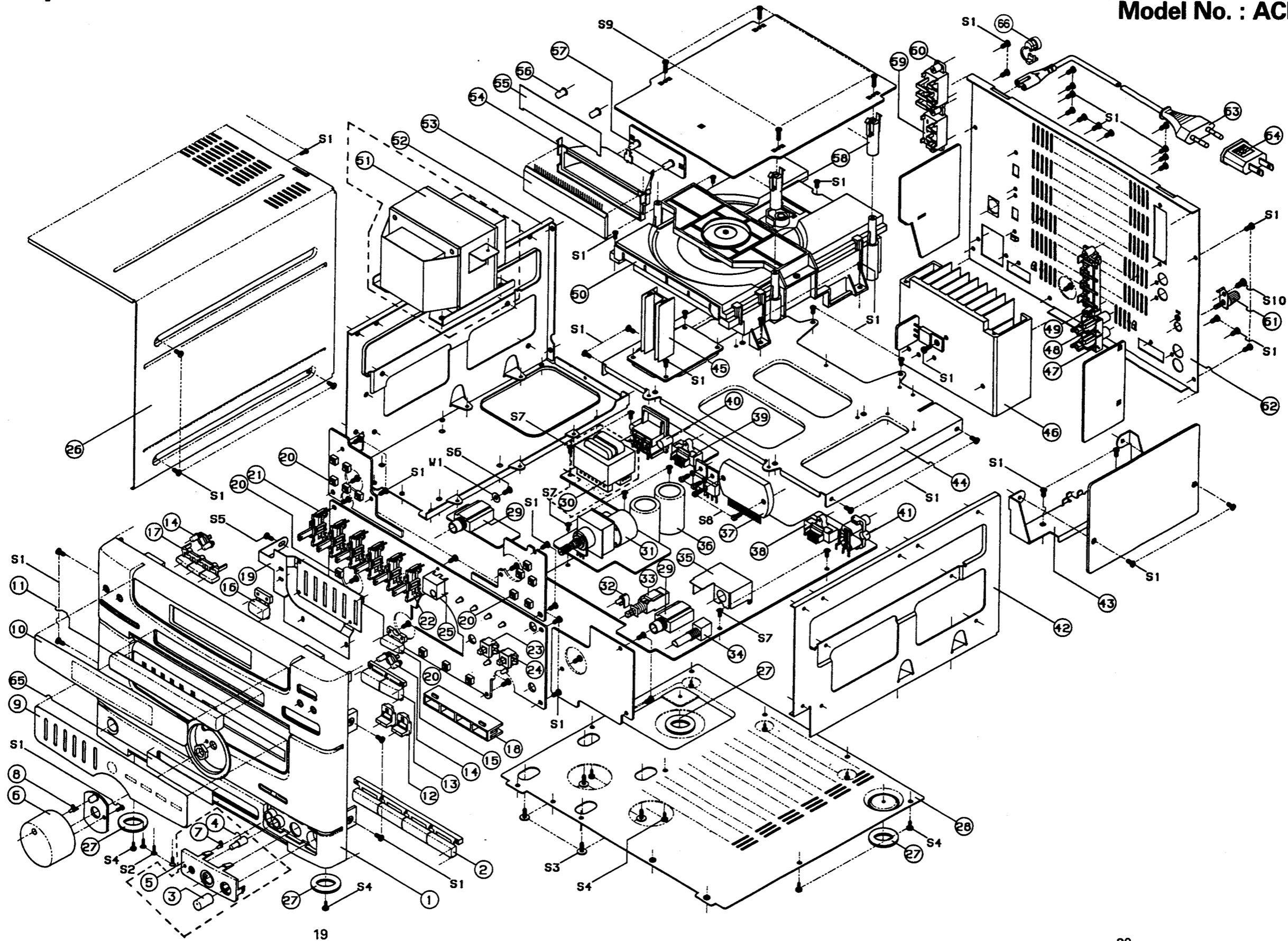
Wiring Diagram(II) ACD-33R(CDP)

Model No. : ACD-33R



Exploded View ACD-33R(AMP,CDP)

Model No. : ACD-33R



Electrical Parts List P-33R(AMP)

PRODUCT SAFETY NOTICE : If you replace any of these components, Carefully read the product safety notice of this manual. Don't degrade the safety of the product through improper servicing. Remark meaning for version, so refer to power requirement of Specifications in this manual.
Resistors & Capacitors tolerance; D : (±0.5%), J : (±5%), K : (±10%), M : (±20%), Z : (+80%, -20%).

| Ref.No | Part No. | Description | Remark |
|------------------|------------|---------------------------|--------|
| Main P. C. Board | | | |
| Capacitors | | | |
| C101L/R-C108L/R | 3519101935 | Ceramic 100pF 50V J | D |
| C109L/R | 3479222071 | Electric SA 22 µF 50V M | |
| C110 | 3479210971 | Electric SA 1 µF 50V M | |
| C111L/R | 3479247971 | Electric SA 4.7 µF 50V M | |
| C112L/R | 3479247971 | Electric SA 4.7 µF 50V M | |
| C113L/R | 3519101935 | Ceramic 100pF 50V J | |
| C115L/R | 3479222071 | Electric SA 22 µF 50V M | |
| C116L/R | 3479247971 | Electric SA 4.7 µF 50V M | |
| C117L/R | 3679332120 | Mylar 0.0033 µF 100V J | |
| C118L/R | 3479210121 | Electric SA 100 µF 10V M | |
| C119/C120 | 3479247971 | Electric SA 4.7 µF 50V M | DOM. |
| C121L/R | 3479247971 | Electric SA 4.7 µF 50V M | |
| C122L/R | 3479247971 | Electric SA 4.7 µF 50V M | |
| C123L/R | 3479222071 | Electric SA 22 µF 50V M | |
| C124 | 3479247971 | Electric SA 4.7 µF 50V M | DOM. |
| C125 | 3519101935 | Ceramic 100pF 50V J | DOM. |
| C126 | 3519221935 | Ceramic 220pF 50V J | DOM. |
| C128/C129 | 3479247971 | Electric SA 4.7 µF 50V M | DOM. |
| C130/C131 | 3479222071 | Electric SA 22 µF 50V M | DOM. |
| C132 | 3479222071 | Electric SA 22 µF 50V M | |
| C135 | 3679683120 | Mylar 0.068 µF 100V J | DOM. |
| C137 - C140 | 3479222071 | Electric SA 22 µF 50V M | DOM. |
| C141 | 3679273071 | Mylar 0.027 µF 100V J | DOM. |
| C401L/R | 3579471130 | Ceramic 470pF 50V J | DOM. |
| C402L/R | 3479247971 | Electric SA 4.7 µF 50V M | |
| C403L/R | 3579151130 | Ceramic 150pF 50V J | |
| C404L/R | 3479247041 | Electric SA 47 µF 25V M | |
| C405L/R | 3479222071 | Electric SA 22 µF 50V M | |
| C406L/R | 3579509030 | Ceramic 5pF 50V J | |
| C407 | 3579103130 | Ceramic 0.01 µF 500V J | |
| C408 | 3479222071 | Electric SA 22 µF 50V M | |
| C409 | 3479247071 | Electric SA 47 µF 50V M | |
| C410 | 3479210071 | Electric SA 10 µF 50V M | |
| C411L/R/C412 | 3479247971 | Electric SA 4.7 µF 50V M | |
| C413L/R | 3679473120 | Mylar 0.047 µF 100V J | |
| C414 | 3479222071 | Electric SA 22 µF 50V M | |
| C415 | 3479247071 | Electric SA 47 µF 50V M | |
| C701 - C703 | 3509103450 | Ceramic 0.01 µF 500V J | D |
| C704/C705 | 3509103450 | Ceramic 0.01 µF 500V J | |
| C706/C707 | 3419233294 | Electric SA 3300 µF 40V M | |
| C708 | 3409222161 | Electric SA 220 µF 35V M | |
| C709 | 3479210071 | Electric SA 10 µF 50V M | |
| C716/C717 | 3479210071 | Electric SA 10 µF 50V M | |
| C719/C720 | 3579103530 | Ceramic 0.01 µF 50V J | D |
| C721 | 3409247141 | Electric SA 470 µF 25V M | |

| Ref.No | Part No. | Description | Remark |
|---------------|--------------|---------------------------------------|---------|
| C722/C723 | 3479210071 | Electric SA 10 µF 50V M | |
| C724 | 3549472407 | Ceramic AC 0.0047 µF 400V J | |
| Connectors | | | |
| CNT1 | 436203243132 | Ass'y 3P 240mm to CD Board | |
| CNT2/CNT4 | 4428516410 | Plug 5P | |
| CNT5 | 4428516210 | Plug 3P | |
| CNT6 | 436206183132 | Ass'y 6P 180mm to Speaker Board | |
| CNT9/CNT10 | 436205203132 | Ass'y 5P 200mm to CPU Board | |
| CNT12 | 436203353121 | Ass'y 3P 350mm to Speaker Board | |
| CNT13 | 4428517710 | Plug 4P | |
| CNT14 | 4428516110 | Plug 4P | |
| CNT15 | 4428516210 | Plug 3P | |
| CNT16 | 436207243132 | Ass'y 7P 240mm to CD Board | |
| CNT17 | 436205183132 | Ass'y 5P 180mm to Regulator - 1 Board | |
| CNT18 | 4428508210 | Plug 2P | |
| CNT20 | 4428525790 | Plug AC S - 3 | DOM. |
| CNT21 | 4428525780 | Plug AC S - 2 | |
| CNT25 | 4428525790 | Plug AC S - 3 | |
| Coils | | | |
| L401L/R | 2648001010 | Inductor, 0.5uH | |
| Diodes | | | |
| D101 | 2058306101 | 1N4148 | |
| D401L/R | 2058306101 | 1N4148 | |
| D402/D403 | 2258100135 | 1N4002 | |
| D404 | 2058306101 | 1N4148 | |
| D404L/R | 2058306101 | 1N4148 | |
| D701 | 2058100146 | PBL303 | |
| D703 | 2058100148 | PBP152 | |
| D704 - D706 | 2258100135 | 1N4002 | |
| ZD401 | 2258599104 | Zener, 5.6V | |
| ZD101 | 2308220118 | LED, SLR34URC | DOM. |
| Fuses | | | |
| F701 | 5508202630 | NB 3A 250V | DOM.A,B |
| (F701) | 5508302035 | T 1A 250V | E,F |
| F705 | 5508201630 | NB 500mA 250V | DOM.A,B |
| (F705) | 5508301634 | T 500mA 250V | E,F |
| IC's | | | |
| IC101 | 2168017132 | LC7821, Switching | |
| IC102 - IC106 | 2168206104 | KIA4559P, Dual OP Amplifier | |

| Ref.No | Part No. | Description | Remark |
|-------------|------------|--------------------------|--------|
| IC401 | 2178317124 | STK4142, Power Amplifier | |
| IC701 | 2168601104 | GD7812, Regulator | |
| IC703 | 2168601101 | GD7805, Regulator | |
| IC705 | 2168601101 | GD7805, Regulator | |
| Relays | | | |
| RLY701 | 5528001570 | G5PE - 1, DC12V | |
| RLY401 | 5528001590 | G5Z - 2A, DC24V | |
| Resistors | | | |
| R101L/R | 3069102970 | 1kΩ | |
| R102L/R | 3069104970 | 100kΩ | |
| R103L/R | 3069102970 | 1kΩ | |
| R104L/R | 3069104970 | 100kΩ | |
| R105L/R | 3069102970 | 1kΩ | |
| R106L/R | 3069104970 | 100kΩ | |
| R107L/R | 3069102970 | 1kΩ | |
| R108L/R | 3069470970 | 47Ω | |
| R109L/R | 3069103970 | 10kΩ | |
| - R112L/R | | | |
| R113L/R | 3069102970 | 1kΩ | |
| R114L/R | 3069104970 | 100kΩ | |
| R115L/R | 3069622970 | 6.2kΩ | |
| R116L/R | 3069333970 | 33kΩ | |
| R117L/R | 3069272970 | 2.7kΩ | |
| R118L/R | 3069102970 | 1kΩ | |
| R119L/R | 3069104970 | 100kΩ | |
| R120L/R | 3069820970 | 82Ω | |
| R121 | 3069104970 | 100kΩ | |
| R122/R124 | 3069473970 | 47kΩ | DOM. |
| R125 - R128 | 3069104970 | 100kΩ | DOM. |
| R129/R130 | 3069513970 | 51kΩ | DOM. |
| R131 | 3069562970 | 5.6kΩ | DOM. |
| R132 - R134 | 3069563970 | 56kΩ | DOM. |
| R135 | 3069104970 | 100kΩ | DOM. |
| R136 | 3069822970 | 8.2kΩ | DOM. |
| R137 | 3069334970 | 330kΩ | DOM. |
| R138 - R141 | 3069820970 | 82Ω | DOM. |
| R142 | 3069681970 | 680Ω | DOM. |
| R143L/R | 3069102970 | 1kΩ | |
| R144L/R | 3069104970 | 100kΩ | |
| R145L/R | 3069561970 | 560Ω | |
| R146L/R | 3069102970 | 1kΩ | |
| R147L/R | 3069104970 | 100kΩ | |
| R148L/R | 3069104970 | 1kΩ | |
| R149L/R | 3069820970 | 82Ω | |
| R150L/R | 3069332970 | 3.3kΩ | |
| R151 | 3069332970 | 3.3kΩ | |
| R152 | 3069103970 | 10kΩ | |
| R153 | 3069102970 | 1kΩ | DOM. |
| R154 | 3069473970 | 47kΩ | DOM. |
| R155 | 3069101970 | 100Ω | DOM. |
| R156 | 3069562970 | 5.6kΩ | DOM. |
| R157/R158 | 3069473970 | 47kΩ | DOM. |
| R169 | 3069820970 | 82Ω | DOM. |
| R170 | 3069820970 | 82Ω | |
| R401L/R | 3069102970 | 1kΩ | |
| R402 | 3069332970 | 3.3kΩ | |

| Ref.No | Part No. | Description | Remark |
|-----------------|------------|--------------------------|--------|
| R403 | 3069103970 | 10kΩ | |
| R404L/R | 3069332970 | 3.3kΩ | |
| R405L/R | 3069102970 | 1kΩ | |
| R406L/R | 3069563970 | 56kΩ | |
| R407L/R | 3069102970 | 1kΩ | |
| R408L/R | 3069563970 | 56kΩ | |
| R409L/R | 3069222970 | 2.2kΩ | |
| R410L/R | 3069222970 | 2.2kΩ | |
| R411 | 3069101970 | 100Ω | |
| R412/R413 | 3069102970 | 1kΩ | |
| R414 | 3069101970 | 100Ω | |
| R415L/R | 3069222970 | 2.2kΩ | |
| R416L/R | 3069153970 | 15kΩ | |
| R417L/R | 3509278582 | C. 0.27Ω2W | |
| R418L/R | 3069472970 | 4.7kΩ | |
| R419L/R | 3069104970 | 100kΩ | |
| R420L/R | 3069220970 | 22Ω | |
| - R423L/R | | | |
| R424L/R | 3069474970 | 470kΩ | |
| R425L/R | 3069184970 | 180kΩ | |
| R426 | 3069473970 | 47kΩ | |
| R427 | 3069102970 | 1kΩ | |
| R428 | 3069123970 | 12kΩ | |
| R429 | 3069224970 | 220kΩ | |
| R430 | 3069823970 | 82kΩ | |
| R432 | 3069224970 | 220kΩ | |
| R433 | 3069104970 | 100Ω | |
| R434 | 3069101970 | 100Ω | |
| R435 | 3069432970 | 4.3kΩ | |
| R436 | 3069473970 | 47kΩ | |
| R704 | 3039220472 | M.O., 22Ω.1W | |
| R705 | 3039101472 | M.O., 100Ω.1W | |
| R706 | 3069330970 | 33Ω | |
| R707 | 3069103970 | 10kΩ | |
| Transistors | | | |
| Q102L/R | 2208606112 | KTD1302 NPN | |
| Q103 | 2208206105 | KTA1015Y PNP | |
| Q401 | 2208206105 | KTA1015Y PNP | |
| Q402L/R | 2208606112 | KTD1302 NPN | |
| Q403L/R | 2208606114 | MPS A06 NPN | |
| Q404 | 2208606113 | MPS A56 PNP | |
| Q405 | 2208606104 | KTC1815Y NPN | |
| Q406-Q408 | 2208606114 | MPS A06 NPN | |
| Q701 | 2208606114 | MPS A06 NPN | |
| Front P.C.Board | | | |
| Capacitors | | | |
| C301L/R | 3579221130 | Ceramic 220pF 50V J | |
| C302L/R | 3679682120 | Mylar 0.0068 µF 100V J | |
| C303L/R | 3679152120 | Mylar 0.0015 µF 100V J | |
| C304L/R | 3579103530 | Ceramic 0.01 µF 50V J | |
| C305L/R | 3679332120 | Mylar 0.0033 µF 100V J | |
| C306L/R | 3679223120 | Mylar 0.022 µF 100V J | |
| C307L/R | 3679472120 | Mylar 0.0047 µF 100V J | |
| C308L/R | 3679223120 | Mylar 0.022 µF 100V J | |
| C309L/R | 3679682120 | Mylar 0.0068 µF 100V J | |
| C310L/R | 3679473120 | Mylar 0.047 µF 100V J | |
| C311L/R | 3679682120 | Mylar 0.0068 µF 100V J | |
| C312L/R | 3479247971 | Electric SA 4.7 µF 50V M | |

| Ref.No | Part No. | Description | Remark |
|----------------------|--------------|---------------------------------|--------|
| C313L/R | 3579470130 | Ceramic 47pF 50V J | |
| C314L/R | 3479247971 | Electric SA 4.7 μ F 50V M | |
| C315L/R | 3479210071 | Electric SA 10 μ F 50V M | |
| C316L/R | 3679563120 | Mylar 0.056 μ F 100V J | |
| C317L/R | 3479210071 | Electric SA 10 μ F 50V M | |
| C318L/R | 3479222971 | Electric SA 2.2 μ F 50V M | |
| C319L/R | 3479247971 | Electric SA 4.7 μ F 50V M | |
| C320/C321 | 3479222071 | Electric SA 22 μ F 50V M | |
| Connectors | | | |
| CNT3 | 436203183132 | Ass'y 3P 180mm to Volume Board | |
| CNT4 | 436205243132 | Ass'y 5P 240mm to Main Board | |
| CNT5 | 436203163132 | Ass'y 3P 160mm to Main Board | |
| CNT11 | 436113082532 | Ass'y 13p 80mm to CPU Board | |
| Diodes | | | |
| LD301 - LD306 | 2308220326 | LED, SLV56MC | |
| IC's | | | |
| IC301 | 2168206104 | KIA459P, Dual OP Amplifier | |
| RMC | 2408000131 | KRM34LI, Remocon Receiver | |
| Resistors | | | |
| R301L/R | 3069682970 | 6.8k Ω | |
| R302L/R | 3069682970 | 6.8k Ω | |
| R303L/R | 3069472970 | 4.7k Ω | |
| R304L/R | 3069472970 | 4.7k Ω | |
| R305L/R | 3069152970 | 1.5k Ω | |
| R306L/R | 3069472970 | 4.7k Ω | |
| R307L/R | 3069682970 | 6.8k Ω | |
| R308L/R | 3069102970 | 1k Ω | |
| R309L/R | 3069822970 | 8.2k Ω | |
| R310L/R | 3069822970 | 8.2k Ω | |
| R311L/R | 3069472970 | 4.7k Ω | |
| R312L/R | 3069822970 | 8.2k Ω | |
| R313L/R | 3069822970 | 8.2k Ω | |
| R314L/R | 3069394970 | 390k Ω | |
| R315L/R | 3069103970 | 10k Ω | |
| R316L/R | 3069474970 | 470k Ω | |
| R317L/R | 3069682970 | 6.8k Ω | |
| R318L/R | 3069102970 | 1k Ω | |
| R319L/R | 3069104970 | 100k Ω | |
| R320L/R | 3069564970 | 560k Ω | |
| R321L/R | 3069622970 | 6.2k Ω | |
| R322L/R | 3069562970 | 5.6k Ω | |
| R323L/R | 3069562970 | 5.6k Ω | |
| R324L/R | 3069104970 | 100k Ω | |
| R325/R326 | 3069681970 | 680 Ω | |
| R310/R328 | 3069820970 | 82 Ω | |
| R329 - R332 | 3069103970 | 10k Ω | |
| R333 | 3069151970 | 150 Ω | |
| Transistors | | | |
| Q301L/R | 2008609107 | MPS9633C NPN | |
| Q302 - Q305 | 2208606104 | KTC1815Y NPN | |
| CPU P.C.Board | | | |
| Capacitors | | | |
| C501 | 3479210971 | Electric SA 1 μ F 50V M | |
| C502 | 3409222211 | Electric SA 2200 μ F 6.3V M | |
| C503 | 3579103130 | Ceramic 0.01 μ F 50V J | |
| C504/C505 | 3529220210 | Ceramic CH 22pF 50V J | |
| C506 | 3479210071 | Electric SA 10 μ F 50V M | |

| Ref.No | Part No. | Description | Remark |
|----------------------------------|--------------|--------------------------------|--------|
| Connectors | | | |
| CNT8 | 4428560060 | Plug 6P | |
| CNT9 | 4428516410 | Plug 5P | |
| CNT10 | 4428516410 | Plug 5P | |
| Diodes | | | |
| D501/D502 | 2058306101 | 1N4148 | |
| IC's | | | |
| IC501 | 2138309145 | CPU DWP112 | |
| X - 501 | 3938101830 | Filter, Resonate 4MHz | |
| Resistors | | | |
| R501 | 3069103970 | 10k Ω | |
| R502 | 3069331970 | 330 Ω | |
| R503 | 3069103970 | 10k Ω | |
| R504 | 3069102970 | 1k Ω | |
| R505/R506 | 3069104970 | 100k Ω | |
| R507 | 3069103970 | 10k Ω | |
| R508 | 3069335970 | 3.3M Ω | |
| R509 | 3069104970 | 100k Ω | |
| R510 - R512 | 3069103970 | 10k Ω | |
| R513/R514 | 3069104970 | 100k Ω | |
| R515 | 3069223970 | 22k Ω | |
| R516 | 3069224970 | 220k Ω | |
| Transistors | | | |
| Q501/Q502 | 2208606104 | KTC1815Y NPN | |
| Volume P.C.Board | | | |
| Capacitors | | | |
| C201L/R | 3479247971 | Electric SA 4.7 μ F 50V M | |
| C202L/R | 3479247971 | Electric SA 4.7 μ F 50V M | |
| C203/C204 | 3479222071 | Electric SA 22 μ F 50V M | |
| C205/C206 | 3479210131 | Electric SA 100 μ F 16V M | |
| Connectors | | | |
| CNT2 | 436205143132 | Ass'y 5P 140mm to Main Board | |
| CNT3 | 4428516210 | Plug 3P | |
| CNT7 | 4428508210 | Plug 2P | |
| CNT8 | 4428550060 | Plug 6P | |
| IC's | | | |
| IC201 | 2168007204 | TA7291S, Motor Control | |
| IC202 | 2168206104 | KIA4559P, Dual OP Amplifier | |
| Resistors | | | |
| R201L/R | 3069104970 | 100k Ω | |
| R202L/R | 3069104970 | 100k Ω | |
| R203/R204 | 3069820970 | 82 Ω | |
| R205 | 3069470970 | 47 Ω | |
| R206 | 3069822970 | 8.2k Ω | |
| R207 | 3069472970 | 4.7k Ω | |
| Volume LED P.C.Board | | | |
| Connector | | | |
| CNT7 | 4358102184 | Ass'y 2P 180mm to Volume Board | |
| Diode | | | |
| LD201 | 2308220109 | LED, SLRURC3 | |
| Volume Selector P.C.Board | | | |
| Connectors | | | |

| Ref.No | Part No. | Description | Remark |
|-----------------------------------|------------|--------------------------------|----------|
| CNT20 | 4358903100 | Ass'y 3P 100mm to Main Board | DOM. B |
| CNT23 | 4358902141 | Ass'y 2P 140mm to Main Board | DOM. B |
| CNT24 | 4428525800 | Plug 4P AC | DOM. B |
| Fuse | | | |
| F702 | 4358902141 | NB 1.5A 250V | DOM. B |
| Speaker Selector P.C.Board | | | |
| Capacitors | | | |
| C601L/R | 3479247971 | Electric SA 4.7 μ F 50V M | |
| C602L/R | 3519101935 | Ceramic 100pF 50V J | |
| C604L/R | 3479247971 | Electric SA 4.7 μ F 50V M | |
| C605L/R | 3479222071 | Electric SA 22 μ F 50V M | |
| C606L/R | 3579222530 | Ceramic 220pF 50V J | D |
| C607L/R | 3579222530 | Ceramic 220pF 50V J | D |
| Connectors | | | |
| C606 | 4428516510 | Plug 6P | |
| C612 | 4428517610 | Plug 3P | |
| IC | | | |
| IC601 | 2168206104 | KIA4559P, Dual OP Amplifier | |
| Resistors | | | |
| R601L/R | 3069102970 | 1k Ω | |
| R602L/R | 3069104970 | 100k Ω | |
| R603L/R | 3069271970 | 270 Ω | |
| R604L/R | 3069102970 | 1k Ω | |
| R605 | 3069472970 | 4.7k Ω | |
| R606 | 3069104970 | 100k Ω | |
| R607L/R | 3069820970 | 82 Ω | |
| Transistor | | | |
| Q601 | 2008206104 | KTD1302 NPN | |
| Regulator – 1 P.C.Board | | | |
| Capacitors | | | |
| C711/C712 | 3579103530 | Ceramic 0.01 μ F 50V J | D |
| C713 | 3409222261 | Electric SA 2200 μ F 35V M | |
| C714 | 3409210261 | Electric SA 1000 μ F 35V M | |
| C715 | 3479210031 | Electric SA 10 μ F 50V M | |
| Connectors | | | |
| CNT17 | 4428516410 | Plug 5P | |
| CNT19 | 4428508210 | Plug 3P | |
| Diode | | | |
| D702 | 2058100148 | PBP 152 | |
| Fuses | | | |
| F703 | 5508202230 | NB 1.5A 250V | DOM. A,B |
| (F703) | 5508302135 | T 1.25A 250V | E,F |
| F704 | 5508302135 | NB 1.5A 250V | DOM. A,B |
| (F704) | 5508302135 | T 1.25A 250V | E,F |
| IC | | | |
| IC702 | 2168609102 | GD7912, Regulator | |
| Resistors | | | |
| R701 – R703 | 3039479472 | M.O., 4.7 Ω 1W | |
| Regulator – 2 P.C.Board | | | |
| Connector | | | |

| Ref.No | Part No. | Description | Remark |
|----------------------------|--------------|------------------------------|--------|
| CNT15 | 436203203132 | Ass'y 3P 200mm to Main Board | |
| IC | | | |
| IC704 | 2168601104 | GD7812, Regulator | |
| Headphone P.C.Board | | | |
| Capacitors | | | |
| C416L/R | 3679561530 | Ceramic 560pF 50V J | D |
| Connector | | | |
| CNT13 | 436204083121 | Ass'y 4P 80mm to Main Board | |
| Resistors | | | |
| R435L/R | 3039271472 | M.O., 270 Ω 1W | |
| Posistor P.C.Board | | | |
| Connector | | | |
| CNT14 | 436202123132 | Ass'y 2P 120mm Main Board | |
| Resistor | | | |
| R431 | 4002023350 | Posistor | |
| Remocon P.C.Board | | | |
| Capacitors | | | |
| C01 | 3409247022 | Electric SA 47 μ F 10V M | |
| C02/C03 | 3509101130 | Ceramic 100pF 50V J | |
| Diodes | | | |
| D01 | 2308060105 | LED, KLR226 | |
| D02 | 2408001100 | EL420KEC | |
| IC | | | |
| IC01 | 2138013116 | uPD 6121G – 002 | |
| Crystal | | | |
| X – 01 | 3938001001 | Ceramic, Resonator CSB455E | |
| Resistors | | | |
| R01 | 3069229970 | 2.2 Ω | |
| R02 – R05 | 3069224970 | 220k Ω | |
| R06 | 3069102970 | 1k Ω | |
| R07 | 3069224970 | 220k Ω | |
| Main P.C.Board | | | |
| Others | | | |
| Trans | 2828095307 | Trans Power | A |
| • | 2828096301 | Trans Power | B |
| • | 2828094207 | Trans Power | E |
| • | 2828092407 | Trans Power | F |
| • | 2828092207 | Trans Power | G |
| Stand-by Trans | 2828095607 | Trans Stand – by | A |
| • | 2828096401 | Trans Stand – by | B |
| • | 2828094307 | Trans Stand – by | E |
| • | 2828092307 | Trans Stand – by | F |
| • | 2828092107 | Trans Stand – by | G |
| • | 2828091007 | Trans Stand – by | DOM. |

Electrical Parts List ACD-33R(CDP)

RODUCT SAFETY NOTICE : If you replace any of these component, carafully read the roduct safety notice of this manual. Don't degrade the safety of the product hrough improper servicing. Remark meaning for version, so refer to power equirement of Specification in this manual. Resistors & Capacitors tolerance, : ($\pm 0.5\%$), J : ($\pm 5\%$), K : ($\pm 10\%$), M : ($\pm 20\%$), Z : ($+80\%$, -20%).

| Ref.No | Part No. | Description | Remark |
|-----------------------|--------------|--------------------------------|--------|
| Main P.C.Board | | | |
| Capacitors | | | |
| C101 | 3079347121 | Electric SA 470 μ F 10V M | |
| C102 - C107 | 3479247041 | Electric SA 47 μ F 25V M | |
| C108 - 109 | 3679392120 | Mylar 0.0039 μ F 100V J | |
| C110 - C111 | 3679103120 | Mylar 0.01 μ F 100V J | |
| C112 - C113 | 3679152120 | Mylar 0.0015 μ F 100V J | |
| C114 - C115 | 3679183120 | Mylar 0.018 μ F 100V J | |
| C116 - C117 | 3579200210 | Ceramic 20pF 50V J | |
| C118 | 3479210071 | Electric SA 10 μ F 50V M | |
| C119 | 3679333120 | Mylar 0.033 μ F 100V J | |
| C120 | 3679103120 | Mylar 0.01 μ F 100V J | |
| C121 | 3679103120 | Ceramic 0.01 μ F 50V J | |
| C122 | 3479247041 | Electric SA 47 μ F 25V M | |
| C123 | 3479247971 | Electric SA 0.47 μ F 50V M | |
| C125 - C127 | 3479247041 | Electric SA 47 μ F 25V M | |
| C128 | 3679222120 | Mylar 0.0022 μ F 100V J | |
| C129 | 3679104120 | Mylar 0.1 μ F 100V J | |
| C130 | . | Not used ! | |
| C131 | 3679104120 | Mylar 0.1 μ F 100V J | |
| C132 | 3679333120 | Mylar 0.033 μ F 100V J | |
| C133 | 3679103120 | Mylar 0.01 μ F 100V J | |
| C134 | 3679472120 | Mylar 0.0047 μ F 100V J | |
| C135 | 3679153120 | Mylar 0.015 μ F 100V J | |
| C136 | 3479222071 | Electric SA 22 μ F 50V M | |
| C137 | 3479233971 | Electric SA 3.3 μ F 50V M | |
| C138 | 3479247971 | Electric SA 4.7 μ F 50V M | |
| C139 - C140 | 3479247041 | Electric SA 47 μ F 25V M | |
| C141 | 3479233971 | Electric SA 3.3 μ F 50V M | |
| C142 | 3519472935 | Ceramic 0.0047 μ F 50V J | |
| C143 | 3519471935 | Ceramic 470pF 50V J | |
| C144 | 3519103935 | Ceramic 0.01 μ F 50V J | |
| C145 - C146 | 3519223935 | Ceramic 0.022 μ F 50V J | |
| C147 | 3479247971 | Electric SA 0.47 μ F 50V M | |
| C148 | 3479247041 | Electric SA 47 μ F 25V M | |
| C149 | 3519103935 | Ceramic 0.01 μ F 50V J | |
| C150 | 3519102935 | Ceramic 0.001 μ F 50V J | |
| C151 | 3679222120 | Mylar 0.0022 μ F 100V J | |
| C152 | 3519561935 | Ceramic 560pF 50V J | |
| C153 | 3519472935 | Ceramic 0.0047 μ F 50V J | |
| C154 | 3679333120 | Mylar 0.033 μ F 100V J | |
| C155 | 3519101935 | Ceramic 100pF 50V J | |
| C156 | 3479210071 | Electric SA 10 μ F 50V M | |
| C157 | 3409347139 | Electric SA 470 μ F 16V M | |
| C158 | 3519223935 | Ceramic 0.022 μ F 50V J | |
| Connectors | | | |
| CNT01 | 4428525570 | Plug 7P | |
| CNT02 | 4428525530 | Plug 3P | |
| CNT03 | 4428516710 | Plug 8P | |
| CNT04 | 4428516710 | Plug 8P | |
| CNT05 | 4428516310 | Plug 4P | |
| CNT06 | 4428516410 | Plug 5P | |
| CNT07 | 432608142132 | Ass'y 8P 420mm to Front Board | |
| CNT08 | . | Not used ! | |

| Ref.No | Part No. | Description | Remark |
|------------------|------------|-------------------|--------|
| CNT09 | 4428508210 | Plug 2P | |
| Diodes | | | |
| D101 - D103 | 2058306101 | 1N4148 | |
| D104 | 2258106100 | 1N4002 | |
| ICs | | | |
| IC101 | 2138022111 | CXA1081, RF AMP | |
| IC102 | 2138022112 | CXA1082, SSP | |
| IC103 | 2138022110 | CXD1167Q, DSP | |
| IC104 | 2138322130 | DWP305B, MICOM | |
| IC105 | 2138000167 | TDA1311, DAC | |
| IC106 | 2168220103 | NJM4560, OP AMP | |
| IC107 | 2168000114 | MC4558, OP AMP | |
| IC108 | 2168600105 | MC7905, Regulator | |
| Resistors | | | |
| R101 | 3069472970 | 4.7k Ω | |
| R102 | 3069332970 | 3.3k Ω | |
| R103 | 3069103970 | 10k Ω | |
| R104 - R105 | 3069102970 | 1k Ω | |
| R106 - R107 | 3069103970 | 10k Ω | |
| R108 | 3069332970 | 3.3k Ω | |
| R109 | 3069103970 | 10k Ω | |
| R110 | 3069101970 | 100k Ω | |
| R111 - R112 | 3069103970 | 10k Ω | |
| R113 | 3069104970 | 100k Ω | |
| R114 | 3069682970 | 6.8k Ω | |
| R115 | 3069104970 | 100k Ω | |
| R116 - R117 | 3069103970 | 10k Ω | |
| R118 | 3069821970 | 820 Ω | |
| R119 | 3069392970 | 3.9k Ω | |
| R120 | 3069471970 | 470k Ω | |
| R121 | 3069104970 | 100k Ω | |
| R122 | 3069512970 | 5.1k Ω | |
| R123 | 3069102970 | 1k Ω | |
| R124 | 3069104970 | 100k Ω | |
| R125 | 3069512970 | 5.1k Ω | |
| R127 | 3069103970 | 10k Ω | |
| R128 | 3069682970 | 6.8k Ω | |
| R129/R130 | 3069272970 | 2.7k Ω | |
| R131 | 3069512970 | 5.1k Ω | |
| R132 | 3069471970 | 470 Ω | |
| R133 | 3069512970 | 5.1k Ω | |
| R134 | 3069392970 | 3.9k Ω | |
| R135 | 3069821970 | 820 Ω | |
| R136 | 3069104970 | 100k Ω | |
| R137 | 3069102970 | 1k Ω | |
| R139 - R141 | 3069561970 | 560 Ω | |
| R142 | 3069104970 | 100k Ω | |
| R143 | 3069243970 | 24k Ω | |
| R144/R145 | 3069472970 | 4.7k Ω | |
| R146 | 3069101970 | 100 Ω | |
| R147 | 3069223970 | 22k Ω | |
| R148 | 3069220970 | 22 Ω | |
| R149 | 3069101970 | 100 Ω | |
| R150 - R152 | 3069103970 | 10k Ω | |
| R153/R154 | 3069123970 | 12k Ω | |

| Ref.No | Part No. | Description | Remark |
|---------------------------------------|------------|-----------------------|--------|
| R155 | 3069103970 | 10k Ω | |
| R156 | 3069223970 | 22k Ω | |
| R157 | 3069103970 | 10k Ω | |
| R158/R159 | 3069473970 | 47k Ω | |
| R160 | 3069103970 | 10k Ω | |
| R161 | 3069104970 | 100k Ω | |
| R162 | 3069103970 | 10k Ω | |
| R163 | 3069102970 | 1k Ω | |
| R164 | 3069203970 | 20k Ω | |
| R165 | 3069105970 | 1M Ω | |
| R166 | 3069561970 | 560 Ω | |
| R167 - R171 | 3069333970 | 33k Ω | |
| R172 | 3069104970 | 100k Ω | |
| R173 | 3069102970 | 1k Ω | |
| R174 | 3069104970 | 100k Ω | |
| R175/R176 | 3069823970 | 82k Ω | |
| R177 | 3069153970 | 15k Ω | |
| R178 | 3069682970 | 6.8k Ω | |
| R179 | 3069124970 | 120k Ω | |
| R180 | 3069474970 | 470k Ω | |
| R181 | 3069124970 | 120k Ω | |
| R182 | 3069362970 | 3.6k Ω | |
| R183 | 3069223970 | 22k Ω | |
| R184 | 3069822970 | 8.2k Ω | |
| R185 | 3069104970 | 100k Ω | |
| R186 | 3069473970 | 47k Ω | |
| R187 - R189 | 3069104970 | 100k Ω | |
| R190 | 3069472970 | 4.7k Ω | |
| R191 | 3069104970 | 100k Ω | |
| R192/R193 | 3069333970 | 33k Ω | |
| R194 - R196 | 3069153970 | 15k Ω | |
| R197 | 3069471970 | 470 Ω | |
| R198 - R199 | 3069101970 | 100 Ω | |
| R200 | 3069333970 | 33k Ω | |
| R201 | 3069104970 | 100k Ω | |
| R202 | 3069102970 | 1k Ω | |
| R203 | 3069151970 | 150k Ω | |
| Variable Resistors - Semifixed | | | |
| VR101 | 3248020343 | Semi 20k Ω (B) | |
| VR102 | 3248020343 | Semi 50k Ω (B) | |
| VR103 | 3248010243 | Semi 1k Ω (B) | |
| Transistors | | | |
| Q101 - Q105 | 2208606114 | KMPS A06 NPN | |
| Q106 - Q110 | 2208206113 | KMPS A56 PNP | |
| Q111 | 2208206105 | KTA1166Y PNP | |
| Q112 - Q115 | 2208606112 | KTD1302 NPN | |
| Q116 | 2208606114 | KMPS A06 NPN | |
| Q117 - Q118 | 2208622109 | DTC144E NPN | |
| Q119 | 2208206105 | KTA1166Y PNP | |
| Q120 - Q123 | 2208606112 | KTD1302 NPN | |
| Others | | | |
| LCD | 2338009918 | LCD, SLC - 60202RS | |
| X - TAL | 3938101500 | X - Tal 16.9344 MHz | |
| L101 | 2648647984 | Coil, 4.7uH | |
| Front P. C.Board | | | |
| Connector | | | |
| CNT07 | 4428540060 | Plug 8P | |
| Diodes | | | |
| D01 - D03 | 2058306101 | 1N4148 | |

| Ref.No | Part No. | Description | Remark |
|-----------------------|----------------------------|---|--------|
| Lamp P.C.Board | | | |
| Connector | | | |
| CNT09 Lamp | 436102182131 2528203810 | Ass'y 2P 180mm From Main Board Lamp, 12V | |

Mechanical Parts List ACD-33R

| No. | Description | Part No. | Q'ty | Remark |
|-----|---------------------------------|--------------|------|----------------|
| 1 | Panel Front, Black | 048501024011 | 1 | Dom. |
| 1 | Panel Front, Black | 048501024012 | 1 | G |
| 1 | Panel Front, Black | 048501024013 | 1 | A,B,E,F |
| 1 | Panel Front, Silver | 048501024021 | 1 | Dom. |
| 2 | Button Tact 4Key, Black | 048543043911 | 1 | Dom. |
| 2 | Button Tact 4Key, Black | 048543043912 | 1 | A,B,E,G,F |
| 2 | Button Tact 4Key, Silver | 048543043921 | 1 | Dom. |
| 3 | Knob Rotary, MIC, Black | 048545097411 | 1 | Dom.,G |
| 3 | Knob Rotary, MIC, Silver | 048545097421 | 1 | Dom. |
| 4 | Button Push, Voice, Black | 8545097310 | 1 | Dom.,G |
| 4 | Button Push, Voice, Silver | 8545097320 | 1 | Dom. |
| 5 | Cover MIC, Black | 048565002011 | 1 | Dom. |
| 5 | Cover MIC, Black | 048565002012 | 1 | G |
| 5 | Cover MIC, Silver | 048565002021 | 1 | Dom. |
| 5 | Cover Front, Black | 048565002111 | 1 | A,B,E,F |
| 6 | Knob Rotary, Black | 048543044011 | 1 | Dom.,A,B,E,G,F |
| 6 | Knob Rotary, Silver | 048543044021 | 1 | Dom. |
| 7 | Indicator Voice | 8555039210 | 1 | Dom.,G |
| 8 | Indicator Volume | 8555039110 | 1 | |
| 9 | Inlay Amplifier, Black | 048533007611 | 1 | Dom. |
| 9 | Inlay Amplifier, Black | 048533007612 | 1 | A,B,E,G,F |
| 9 | Inlay Amplifier, Silver | 048533007613 | 1 | Dom. |
| 10 | Inply CDP, Black | 048535036011 | 1 | Dom.,A,B,F,E,G |
| 10 | Inply CDP, Silver | 048535036013 | 1 | Dom. |
| 11 | Door Tray, Black | 048563005911 | 1 | Dom.,A,B,F,E,G |
| 11 | Door Tray, Silver | 048563005921 | 1 | Dom. |
| 12 | Button Push, Surround | 8545097510 | 2 | |
| 13 | Button Tact, Play/Stop, Black | 048543044111 | 1 | Dom.,A,B,E,G,F |
| 13 | Button Tact, Play/Stop, Silver | 048543044121 | 1 | Dom. |
| 14 | Button Tact, 2Key, Black | 8545096610 | 2 | Dom.,A,B,E,G,F |
| 14 | Button Tact, 2Key, Silver | 8545096620 | 2 | Dom. |
| 15 | Button Tact, Open/close, Black | 048545097611 | 1 | Dom.,A,B,E,G,F |
| 15 | Button Tact, Open/close, Silver | 048545097621 | 1 | Dom. |
| 16 | Button Tact, Power, Black | 048545097211 | 1 | Dom.,A,B,E,G,F |
| 16 | Button Tact, Power, Silver | 048545097221 | 1 | Dom. |
| 17 | Button Tact, 3Key, Black | 8545096710 | 1 | Dom.,A,B,E,G,F |
| 17 | Button Tact, 3Key, Silver | 8545096720 | 1 | Dom. |
| 18 | Holder LED, White | 6513005510 | 1 | |
| 19 | Shield Fence, EQ | 6163111710 | 1 | |
| 20 | Switch, Tact | 4658003710 | 15 | |
| 21 | Volume Slide(EQ)100KBx2 | 3238410010 | 5 | |
| 22 | Volume Slide(Bal)100KW | 3238410110 | 1 | |
| 23 | Switch Push(2/2)Spea | 4628054410 | 1 | |
| 24 | Switch Push(2/2)Spea | 4628042010 | 1 | |
| 25 | Sensor Remote | 2408000131 | 1 | |
| 26 | Cover Top, Black | 046121002121 | 1 | Dom.,A,B,E,G,F |
| 26 | Cover Top, Silver | 046121002122 | 1 | Dom. |
| 27 | Foot Cushion | 6715020610 | 4 | |
| 28 | Cover Bottom | 6122417910 | 1 | |
| 29 | Jack MIC, 9P, Black | 4438004220 | 2 | Dom.,G |
| 29 | Jack MIC, 9P, Black | 4438004220 | 1 | A,B,E,F |
| 29 | Jack MIC, 9P, Gold | 4438005320 | 2 | Dom. |
| 30 | Trans Stand - by | 2828095607 | 1 | A |
| 30 | Trans Stand - by | 2828096401 | 1 | B |
| 30 | Trans Stand - by | 2828094307 | 1 | E |
| 30 | Trans Stand - by | 2828092307 | 1 | F |
| 30 | Trans Stand - by | 2828092107 | 1 | G |
| 30 | Trans Stand - by | 2828091007 | 1 | DOM. |
| 31 | Volume Main 50KAx2, Motor | 3208063210 | 1 | |
| 32 | Spacer LED | 6705017910 | 1 | Dom.,G |

| No. | Description | Part No. | Q'ty | Remark |
|-----|--------------------------------|--------------|------|----------------|
| 33 | Switch, Push(4/2)Spul | 4628051010 | 1 | Dom.,G |
| 34 | Volume MIC 50KBx2 | 3208063310 | 1 | Dom.,G |
| 35 | Shield Fence, MIC | 6165142410 | 1 | Dom.,G |
| 36 | Cap Power | 3419533294 | 2 | |
| 37 | IC Power | 2178317124 | 1 | |
| 38 | Socket Connector, 11P | 4428570110 | 1 | |
| 39 | Socket Connector, 9P | 4428570090 | 1 | |
| 40 | AC Socket | 4448003010 | 1 | Dom.,E,G,F |
| 41 | Jack RCA, 2P | 4438105610 | 1 | |
| 42 | Frame Side Right | 6122634110 | 1 | |
| 43 | Not used ! | - | 1 | |
| 44 | Frame Main | 6122634310 | 1 | |
| 45 | Heatsink Regulator TR | 7505206220 | 1 | |
| 46 | Heatsink Power | 7503014010 | 1 | |
| 47 | Not used ! | - | 1 | |
| 48 | Jack RCA 1P, Sub Woofer, Black | 4438110010 | 1 | |
| 49 | Push Term 4P, Speaker | 4408105420 | 1 | Dom.,A,B,E,G,F |
| 50 | Mecha CD, ILU - 04A, Black | 5728000410 | 1 | Dom.,A,B,E,G,F |
| 50 | Mecha CD, ILU - 04AS, Silver | 5728000420 | 1 | Dom. |
| 51 | Trans Power | 2828095307 | 1 | A |
| 51 | Trans Power | 2828096301 | 1 | B |
| 51 | Trans Power | 2828094207 | 1 | E |
| 51 | Trans Power | 2828092407 | 1 | F |
| 51 | Trans Power | 2828092207 | 1 | G |
| 52 | Frame Side Left | 6122634210 | 1 | |
| 53 | LCD Display | 2338009918 | 1 | |
| 54 | Holder LCD, White | 6513005410 | 1 | |
| 55 | Filter LCD, Green | 048535036711 | 1 | Dom. |
| 55 | Filter LCD, Milk | 048535036711 | 1 | A,B,E,F,G |
| 56 | Cap color, Lamp | 4828000210 | 2 | Dom. |
| 56 | Cap color, Lamp, Blue | 4828000310 | 2 | A,B,E,F,G |
| 57 | Lamp, 12V, 100mA | 2528203810 | 2 | |
| 58 | Spacer PCB | 6705018010 | 4 | |
| 59 | Switch Voltage, 1C | 4618006610 | 1 | Dom.,B |
| 60 | Switch Voltage, 2C | 4618006510 | 1 | Dom.,B |
| 61 | Term, Ground | 4408104910 | 1 | |
| 62 | Chassis Back, Black | 046102033311 | 1 | Dom. |
| 62 | Chassis Back, Silver | 046102033312 | 1 | Dom. |
| 62 | Chassis Back, Black | 046102033331 | 1 | G |
| 62 | Chassis Back, Black | 046102033334 | 1 | E |
| 62 | Chassis Back, Black | 046102033335 | 1 | F |
| 62 | Chassis Back, Black | 046102033341 | 1 | A |
| 62 | Chassis Back, Black | 046102033351 | 1 | B |
| 63 | Cord AC Power, Black | 4308001810 | 1 | Dom. |
| 63 | Cord AC Power, Black | 4308000610 | 1 | E |
| 63 | Cord AC Power, Black | 4308006610 | 1 | F,G |
| 63 | Cord AC Power, Black | 4308001410 | 1 | A,B |
| 64 | Adapter AC Plug | 4428300310 | 1 | Dom. |
| 65 | Diffuser LED | 8535034260 | 1 | |
| 66 | Stopper Cord | 6518000710 | 1 | A,B |

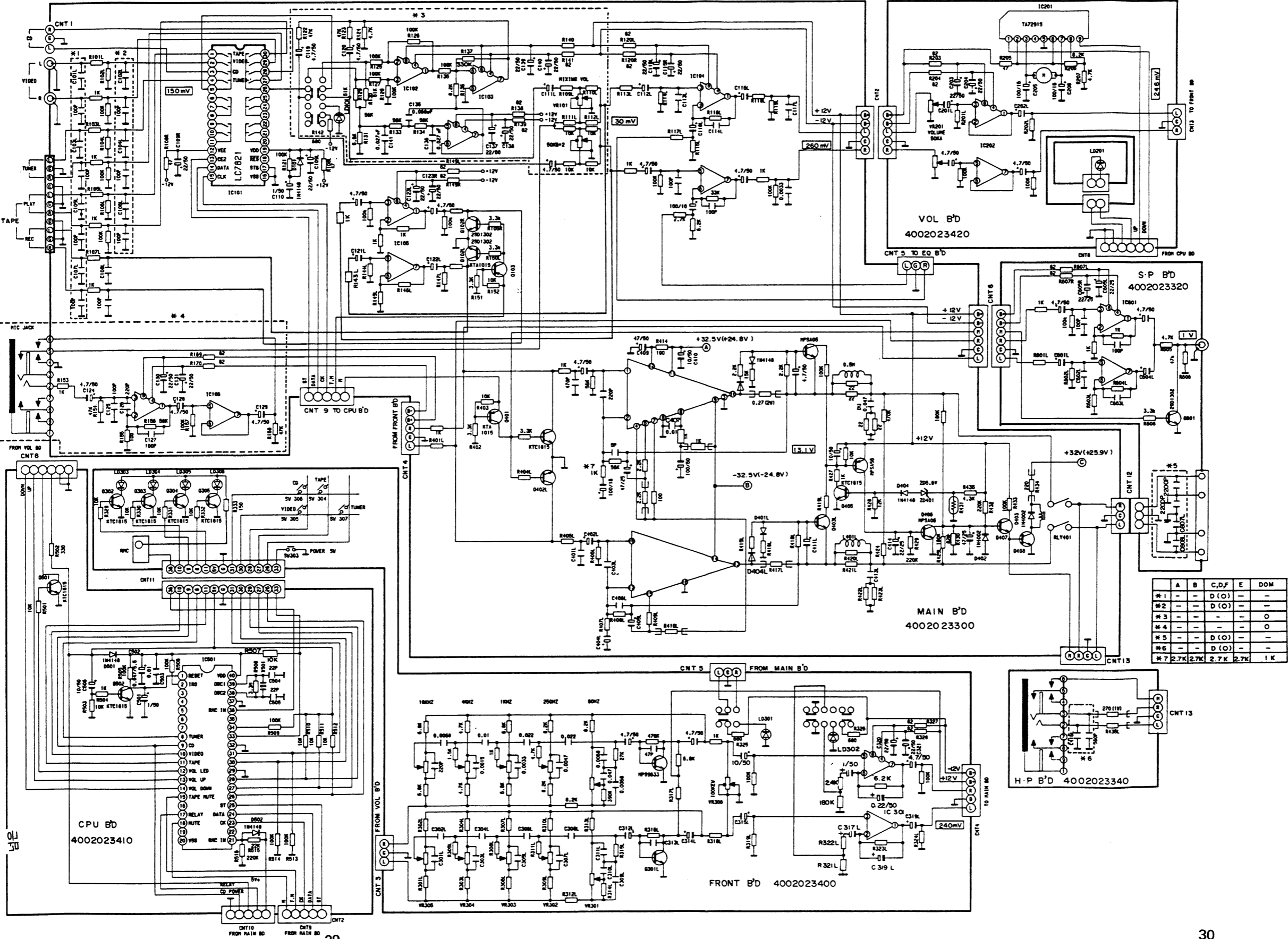
Screws

| S1 | #2BTC 3x8 ZNB | 8109230083 | 57 | |
|----|-----------------|------------|----|--|
| S2 | #2FTC 3x8 ZNB | 8129230083 | | |
| S3 | WSAM 4x8 ZNB | 819440083 | 4 | |
| S4 | #2BTC 3x6 ZNB | 8109230063 | 9 | |
| S5 | #2BTC 3x6 ZNY | 8109230061 | 1 | |
| S6 | #2BTC 3x12 ZNY | 8109230121 | | |
| S7 | #2WPTC 3x8 ZNY | 159230081 | 7 | |
| S8 | HEXMPW 3x16 ZNY | 8099130161 | 4 | |

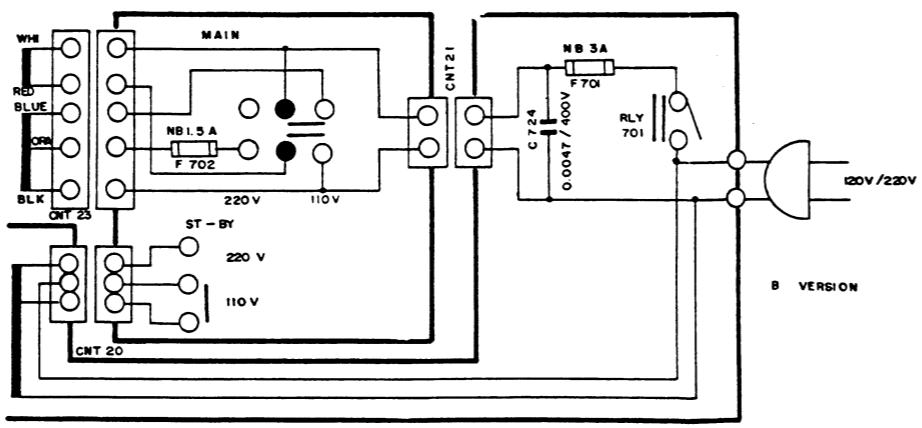
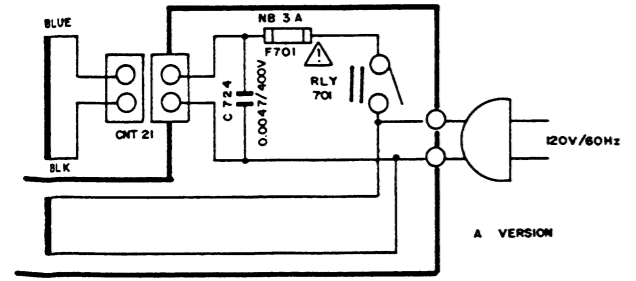
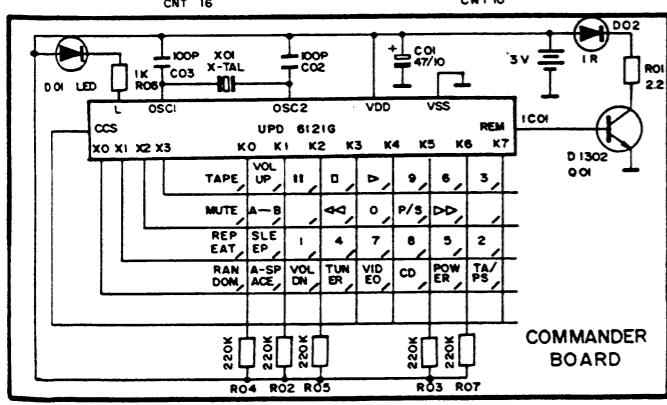
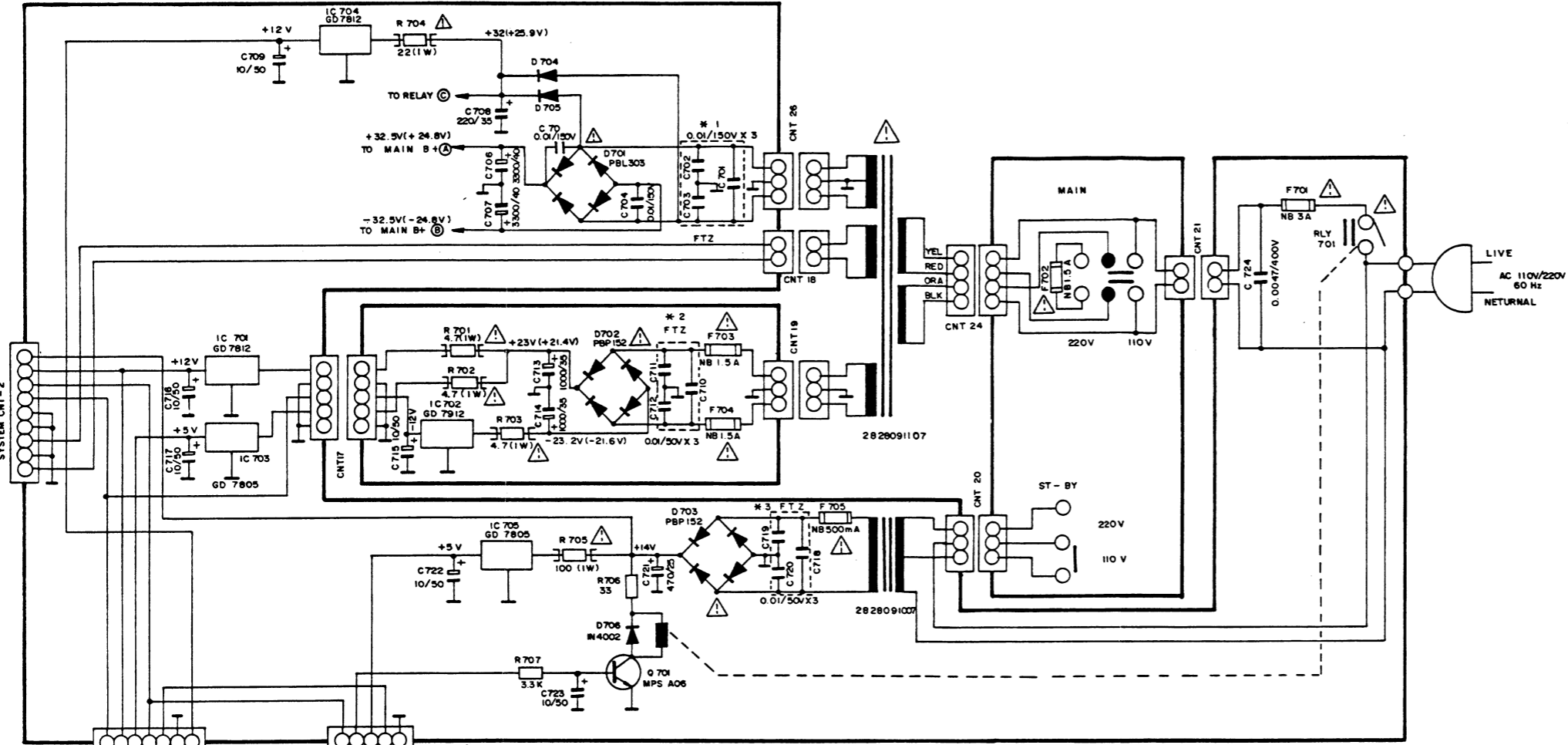
| No. | Description | Part No. | Q'ty | Remark |
|-----|---------------|-------------|------|--------|
| S9 | #1BT 3×35 ZNB | 8109130353 | 4 | |
| S10 | #2PTC 4×6 ZNY | 8119240061 | 1 | |
| W1 | Washr Plain | 83050038110 | 1 | |

Schematic Diagram (I) ACD-33R(AMP)

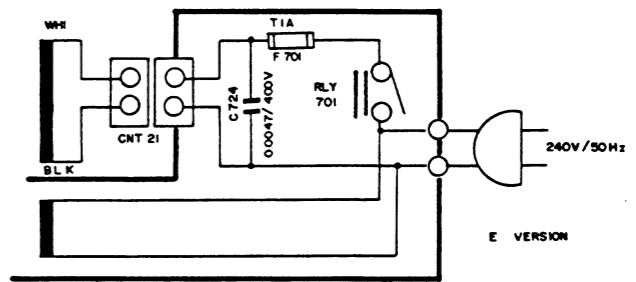
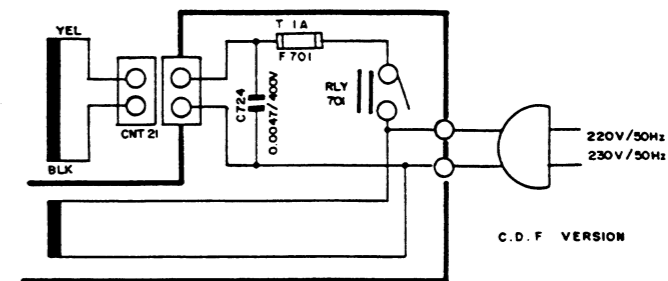
Model No. : ACD-33R



Schematic Diagram(II) ACD-33R(AMP)



Model No. : ACD-33R

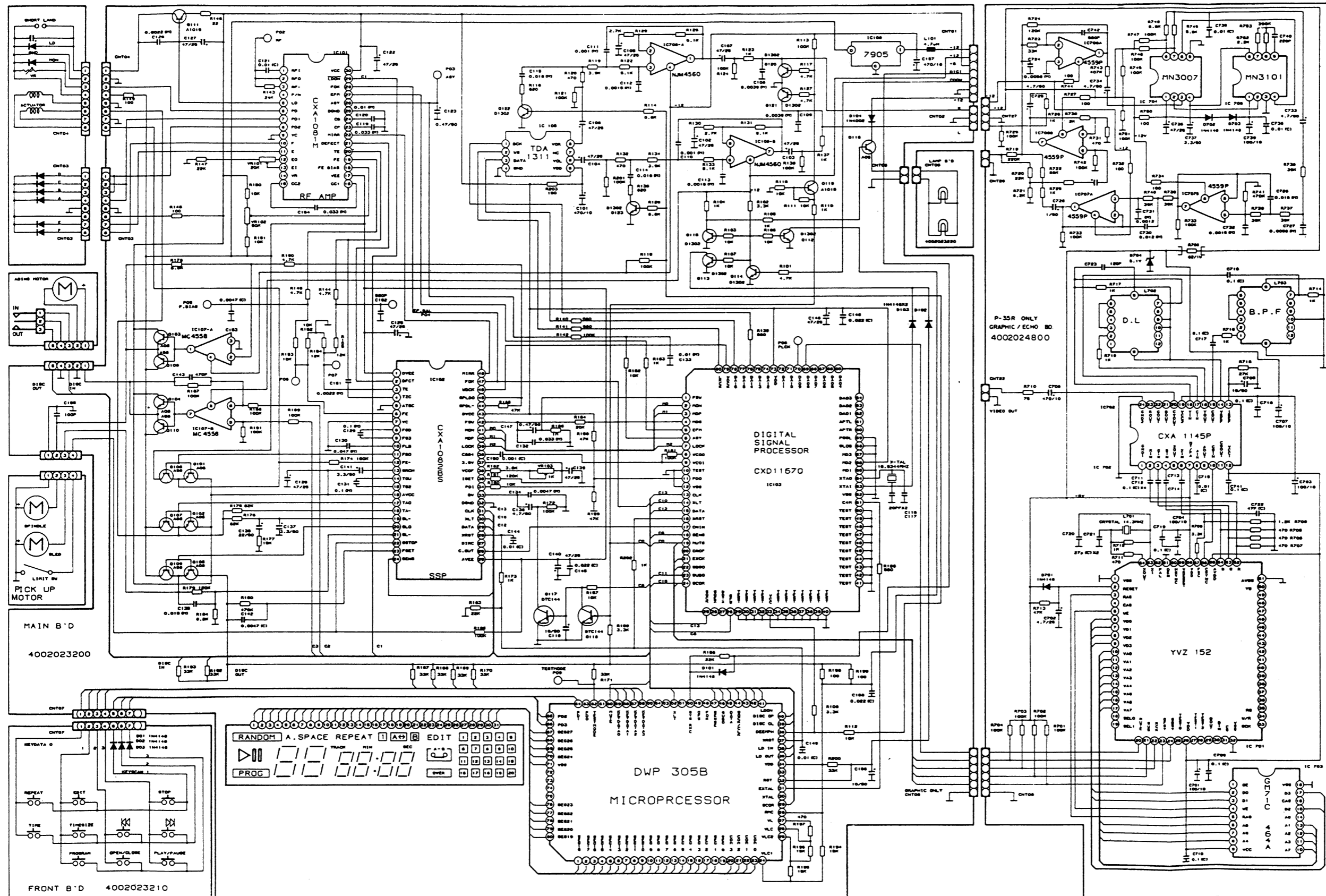


- NOTES
- Resistance values are indicated in ohms unless otherwise specified (K=1,000 M=1,000,000)
 - Capacitance values are shown in microfarads unless otherwise noted (P=micro micro farads)
 - AC RMS
() : AT 1KHz 60HM LOAD
- CAUTION
- Safety precautions to be followed during servicing
- Since those parts marked with Δ are critical parts for safety use the described parts list.
 - Before returning the receiver to the customer make appropriate leakage current or resistance measurements to determine that exposed parts are properly insulated from the supply circuit.

| | A | B | C. D. F | E | KLE |
|---------------|-----------|-----------|------------------|------------|------------|
| ST / BY TRANS | | | 2828092307 | 2828094307 | 2828092107 |
| MAIN TRANS | | | 2828092407 | 2828094207 | 2828092207 |
| F 701 | NB 3 A | NB 3 A | T 1 A | T 1 A | T 1 A |
| F 702 | — | NB 1.5 A | — | — | — |
| F 703 | NB 1.5 A | NB 1.5 A | T 1.25 A | T 1.25 A | T 1.25 A |
| F 704 | NB 1.5 A | NB 1.5 A | T 1.25 A | T 1.25 A | T 1.25 A |
| F 705 | NB 500 mA | NB 500 mA | T 500 mA | T 500 mA | T 500 mA |
| * 1 | — | — | C(X), D(O), F(X) | — | — |
| * 2 | — | — | C(X), D(O), F(X) | — | — |
| * 3 | — | — | C(X), D(O), F(X) | — | — |

Schematic Diagram(III) ACD-33R(CDP)

Model No. : ACD-33R



SERVICE INFORMATION

- NOTES**
- Resistance values are indicated in ohms unless otherwise specified (K=1,000 M=1,000,000)
 - Capacitance values are shown in microfarads unless otherwise noted (P=micro micro farads.)

CAUTION
Safety precautions to be followed during servicing

- Since those parts marked with Δ are critical parts for safety use the described parts list.
- Before returning the receiver to the customer make appropriate leakage current or resistance measurements to determine that exposed parts are properly insulated from the supply circuit.

| REVISED | DATE |
|---------|------|
| 1 st | |
| 2 nd | |
| 3 rd | |
| 4 th | |
| 5 th | |

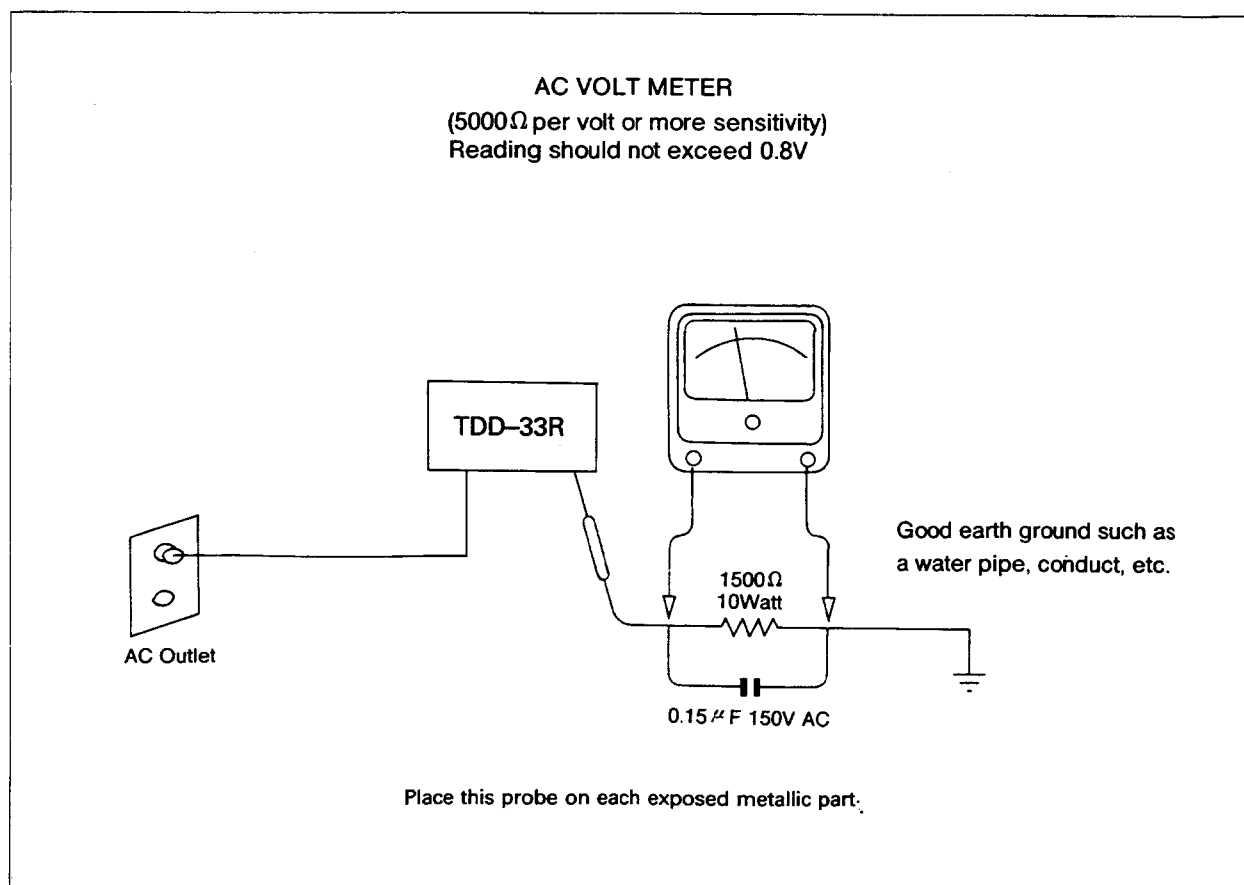
Safety Precaution TDD-33R

WARNING

Service should not be attempted by anyone unfamiliar with the necessary precautions on this player. The following precautions are necessary during servicing.

1. Many electrical and mechanical parts in this player have special characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by a Δ in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.
2. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as

terminals, screwheads, metal overlays, etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a 120V AC outlet (120V Version only). (Do not use a line isolation transformer during this check.) Use an AC voltmeter having 5000Ω per volt or more sensitivity in the following manner: Connect a 1500Ω 10watt resistor paralleled by a $0.15\mu\text{F}$ 150V AC capacitor, between a known good earth ground (water pipe, conduct, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500Ω resistor and $0.15\mu\text{F}$ capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.3 volts RMS. This corresponds to 0.2mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



Specifications TDD-33R

FM Section

| | |
|--|-----------------------|
| Tuning Range | |
| USA Version | 87.5-107.9MHz |
| Europe / Australia Version | 87.5-108MHz |
| Scanning Frequency Interval(Auto / Manual) | |
| USA Version | 0.2MHz |
| Europe / Australia Version | 0.05MHz |
| Usable Sensitivity IHF at $S+N+D / N+D=30dB$ | 2.5 μV (13.3dBf) |
| 50dB Quieting Sensitivity IHF, | |
| Stereo | 50 μV (39dBf) |
| THD at 1kHz, 100% MOD, | |
| Mono | 0.3% |
| Stereo | 0.5% |
| Stereo Separation at 1kHz | 40dB |
| Signal to Noise Ratio IHF, | |
| Mono | 70dB |
| Stereo | 68dB |
| Frequency Response | |
| 20Hz~15,000Hz | +0.5 / -3dB |

AM Section

| | |
|--|------------------|
| Tuning Range | |
| USA Version | 520 - 1710kHz |
| Europe / Australia Version | 522 - 1611kHz |
| Scanning Frequency Interval(Auto / Manual) | |
| USA Version | 10kHz |
| Europe / Australia Version | 9kHz |
| Usable Sensitivity | |
| IHF at $S+N=20dB$, Loop antenna | 1000 $\mu V / m$ |
| Signal to Noise Ratio, 30% MOD. | 40dB |

Tape Section

| | |
|--|---|
| Type | Soft touch front loading stereo double cassette deck with Dolby NR system |
| Track system | 4 track, 2 channel stereo playback(Deck B) and recording / playback(Deck A) |
| Recording system | AC bias system(bias frequency : 105kHz) |
| Erasing system | AC system |
| Tape speed | 1.87 IPS(4.76cm / sec) |
| Heads | Hard permalloy recording / playback head×1 Hard permalloy playback reverse head×1 Double Gap erasing head×1 |
| Motor | Electronic governor controlled DC motor |
| Wow and flutter | Less than 0.2%(WRMS) |
| Fast winding time | Approximately 120 seconds with C - 60 cassette tape |
| Frequency Response | -20dB REC / PB |
| Normal tape | 35-14,500Hz, $\pm 3dB$ |
| CrO2 tape | 35-14,000Hz, $\pm 3dB$ |
| 0dB REC / PB | |
| Signal to noise ratio | |
| Dolby NR ON | 60dB(Normal tape) |
| (Weighted) | 62dB(CrO2 tape) |
| Dolby NR OFF | 50dB(Normal tape) |
| (Weighted) | 52dB(CrO2 tape) |
| Total harmonic distortion | Less than 2% at 1kHz, 0dB REC / PB |
| Power Requirements ; | |
| A : 120V 60Hz for USA / Canadian version | |
| B : 120 / 220V 60 / 50Hz for multi - voltage version(switchable) | |
| C : 230V 50Hz for General European version | |
| D : 230V 50Hz for Germanian & Italian version | |

E : 240V 50Hz for British & Australian version

F : 230V 50Hz for Swiss & Scandinavian version

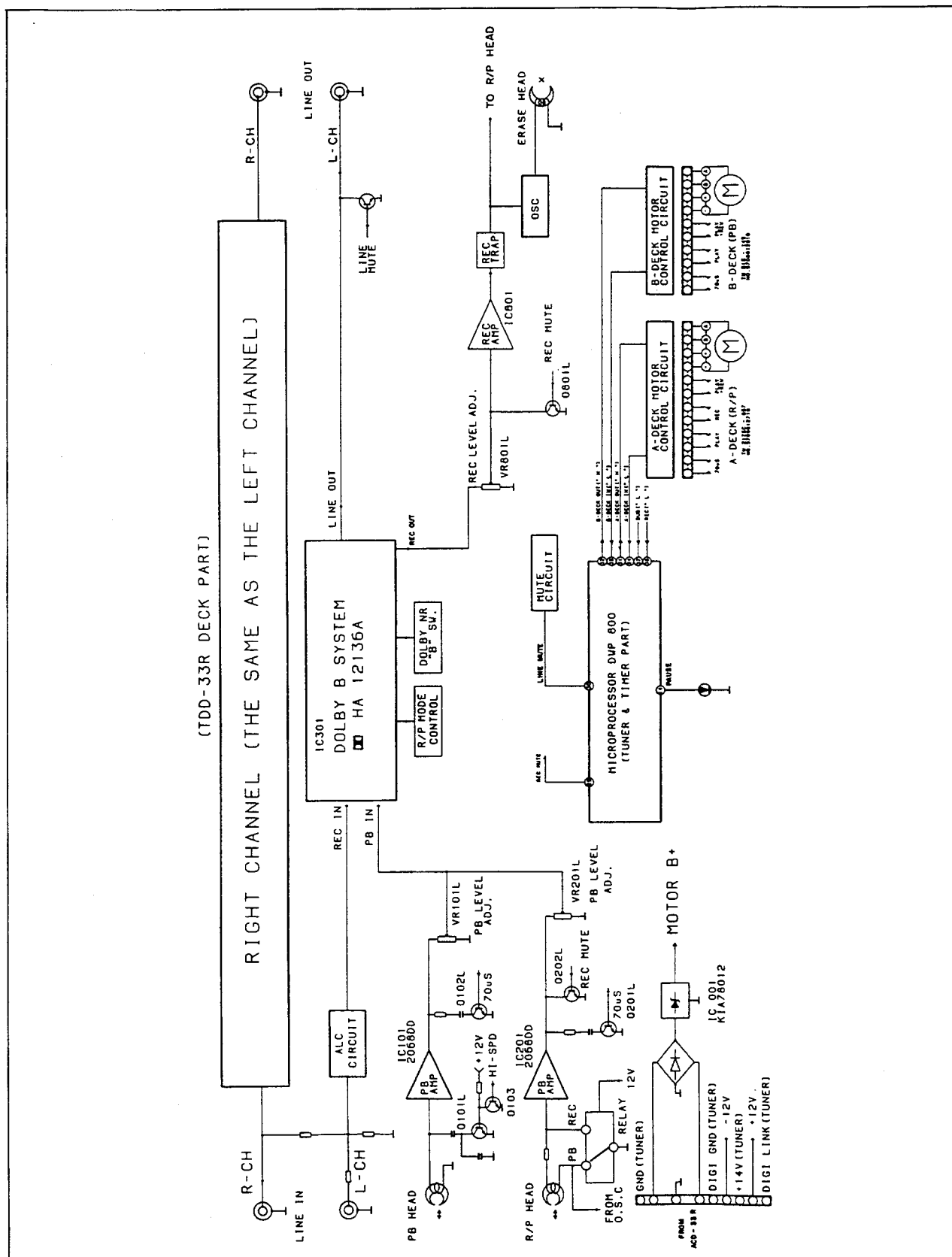
Dimensions 267(W)×188(H)×250(D)mm
10.5(W)×7.4(H)×9.8(D)inch

Weight(Net) 3.15kg(6lbs, 14.9ozs)

Note : Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the European standard, and provides information on regional circuit modification through use of alternate schematic diagram, and information on regional component variations through use of parts list. Design and Specifications subject to change without notice for improvement.

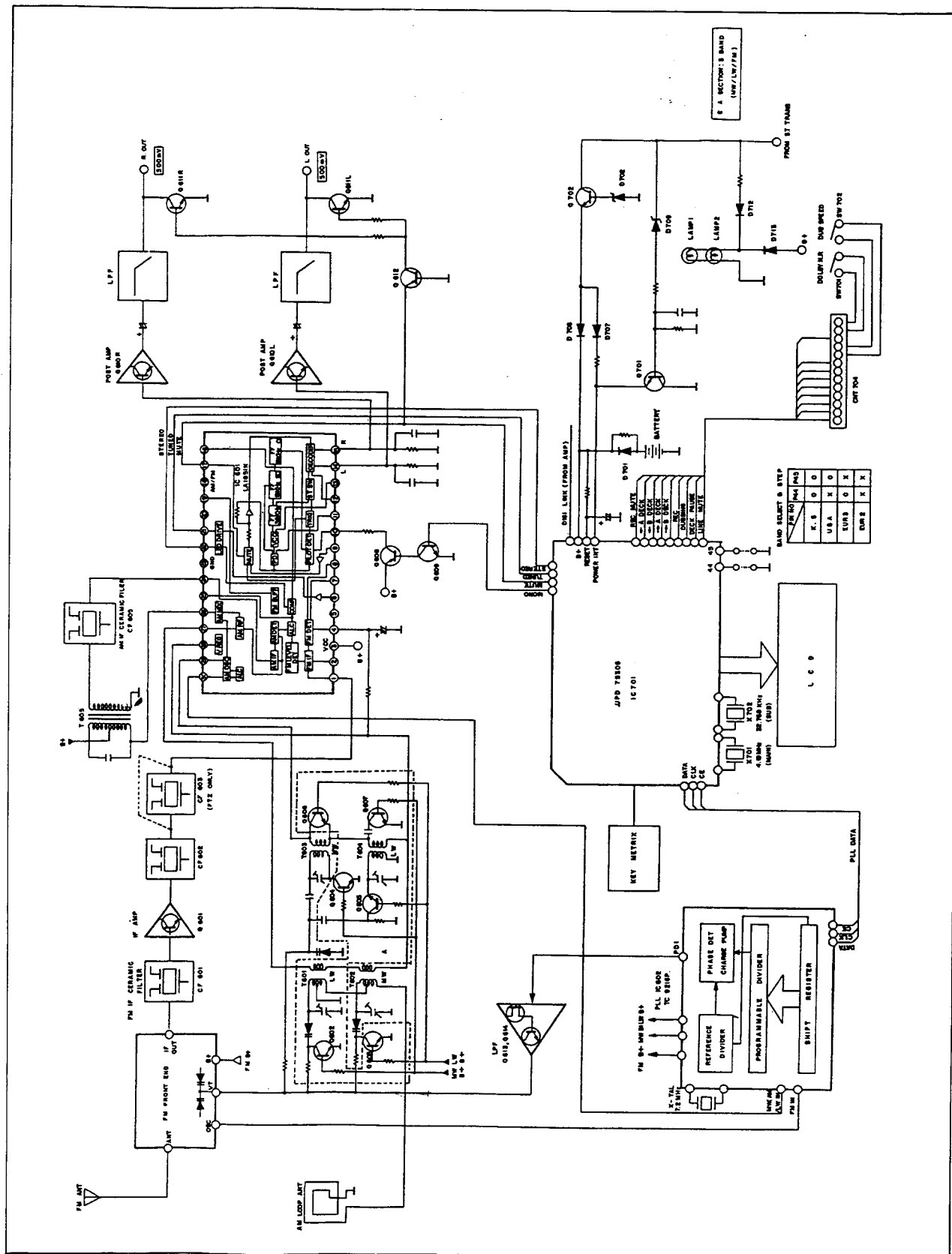
Block Diagram (I) TDD-33R(DECK)

Model No. : TDD-33R



Block Diagram (II) TDD-33R(TUNER)

Model No. : TDD-33R



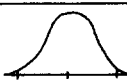
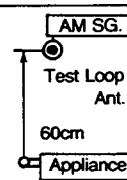
Alignment Procedures TDD-33R(TUNER)

***Before making adjustment operate the appliance for more than 2 minutes.**

***Note :** 1. 0 dB=1 μ V 2. FM 100% Mod.=75kHz Dev. 3. DVM=Digital Volt Meter
4. SG=Signal Generator 5. SSG=Stereo Signal Generator

1.AM Adjustment

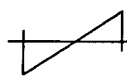
● Selector SW.....Tuner, AM

| No | Subject | Feed Signal | | Setting Appliance | Measure Output | Adujst Point | Adujst For | Remark |
|----|-----------------|--|---------|-------------------|--|--------------|--|--|
| | | From | To | | | | | |
| 1. | Tuning Voltage | 520kHz | 1710kHz | *1) 520kHz | Connect DVM R646 | T603 | DC $1 \pm 0.2V$ | |
| | | 1619kHz | | *2) 1710kHz | | TC603 | DC $8.5 \pm 0.3V$ | |
| | | ● Repeat the step *1) and *2) until DVM reads the tuning voltage mentioned above. ● In case the freq. is 9kHz, the freq. of AM SG and appliance should be changed to *1) 522kHz *2) 1611kHz | | | | | | |
| 2. | IF | AM IF Genescope | ANT. | 1000kHz | Connect IF Genescope | T605 | Symmetrical curve on AM IF Genescope |  |
| 3. | RF Tuning | *1) AM SG 600kHz, 74dB 400Hz(30%MOD.) | ANT. | 600kHz | Output Connect AC Voltmeter & Oscilloscope | T602 | Maximize audio output |  |
| | | *2) AM SG 1400kHz, 74dB 400Hz(30%MOD.) | ANT. | 1400kHz | | TC602 | | |
| | | ● Feed Signal should be fed to Loop ant. through the TEST Loop ant.,60cm distant from the appliance ● Repeat the step *1) & *2)until no further improvement occurs. ● In case the freq. is 9kHz, the freq. of AM SG and appliance should be changed to *1)603kHz *2)1404kHz | | | | | | |
| 4. | Signal Meter | AM SG 1000kHz, 80dB 400Hz(30%MOD.) | ANT. | 1000kHz | | VR603 | Tuned light on | |
| | | ● In case the frequency. step is 9kHz, the frequency of AM SG and appliance should be changed to 999kHz. | | | | | | |

2. LW Adjustment

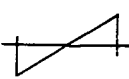
● Selector SW.TUNER, MW/AM

● This adjustment is necessary to 3 band(MW/LW/FM).

| No | Subject | Feed Signal | | Setting Appliance | Measure Output | Adujst Point | Adujst For | Remark |
|----|----------------|--|--------|--|--|--------------|--------------------------|---|
| | | From | To | | | | | |
| 1. | Tuning Voltage | 153kHz | 279kHz | *1) 153kHz | Connect DVM to TP401 | T604 | DC $2 \pm 0.2V$ |  |
| | | | | *2) 279kHz | | TC604 | DC $5.5 \pm 0.2V$ | |
| | | | | ● Repeat the step *1)and *2)until DVM reads the tuning voltage mentioned above | | | | |
| 2. | RF Tuning | *1) AM SG 162kHz, 80dB 400Hz(30%MOD.) | ANT. | 162kHz | Output Connect AC Voltmeter & Oscilloscope | T601 | Maximize audio output | |
| | | *2) AM SG 252kHz, 80dB 400Hz(30%MOD.) | | 252kHz | | TC601 | | |
| | | ● Feed Signal should be fed to Loop ant. through the Test Loop ANT 60cm distant from the appliance ● Repeat the step *1)and *2)until no further improvement occurs. | | | | | | |

3.FM Adjustment

- Selector SW.....Tuner, FM(Mono/Stereo)
- Deviation.....USA/Canada(75kHz Dev.)
Europe(40kHz Dev.)

| No | Subject | Feed Signal | | Setting Appliance | Measure Output | Adujst Point | Adujst For | Remark |
|----|-----------------|--|----------|-------------------|---|---------------|--|---|
| | | From | To | | | | | |
| 1. | Tuning Voltage | 87.5MHz | 107.9MHz | 87.5MHz | Connect DVM | | DC $2.0 \pm 0.2V$ |  |
| | | | | 107.9MHz | R646 | | DC $8.0 \pm 0.2V$ | |
| 2. | IF | FM IF Genescope | ANT. | 98MHz 60dB | Connect IF Genescope C625 ⊕ | | Symmetrical S curve on FM IF Genescope | |
| 3. | THD (Mono) | FM SG 98.1MHz, 60dB 1kHz (75kHz dev.) | ANT. | 98.1MHz Mono | *1)Output Connect DVM | T607 | DC $0 \pm 0.05V$ | |
| | | | | | *2)Output Connect AC Voltmeter & Distortion Analyzer | T606 | Minimize distortion | |
| | | | | | ● Adjust the step *1) 1st and the step *2) next and repeat until to further improvement occurs. | | | |
| 4. | THD (Stereo) | FM SSG 98.1MHz, 60dB 1kHz (75kHz Dev.) Pilot 19kHz (9% Mod.) | ANT. | 98.1MHz Stereo | Output connect AC voltmetr & distortion | Front- End | Minimize distortion | |
| 5. | Mute level | FM SG 98.1MHz, 15 μV 1kHz (75kHz Dev.) | ANT. | 98.1MHz Mono | Output connect oscilloscope | VR601 | Tuned on | |
| 6. | Separat- ion | *1) FM SSG 98.1MHz, 60dB 1kHz(75kHz, Dev) Pilot 19kHz (10% Mod) (L ch.Mode) | ANT. | 98.1MHz Stereo | R ch Mod connect AC voltmeter & distortion analyzer and oscilloscope | VR602 | Minimize output | L ch Mode |
| | | *2) Same as above (R ch.Mode) | | | L ch Mod connect same as above | | | R ch Mode |
| | | ● Repeat the step *1)until no further improvement occurs. | | | | | | |

Alignment Procedures TDD-33R(DECK)

Tape Section

1.Before Measurements and Adjustment

The following general conditions apply to the electrical measurements and adjustments unless especially stated otherwise.

- Dolby NR switch off.
- Use 500mV (200nwb/m) for 0 dB as the standard level of the unit.
- Test tape
 - TCC-155 — Azimuth(14.5kHz -24dB)
 - TCC-112 — Tape speed(3kHz -10dB)
 - TCC-130 — Playback level(Dolby ref. tape 400Hz 0dB)
 - TCC-185C — Playback frequency response
- Reference Tape
 - Normal — TDK AC-224
 - CrO2 — TDK AC-513

2.Instrument required

- Audio frequency oscillator
- ACVM or dual channel mV-meter
- Wow/Flutter meter
- Oscilloscope

Playback section

| No. | Adjustments | Test tape | Mode | Apply signal to | Measure on | Read on | Adjust with | Adjust to |
|-----|-----------------------------|--|--|-----------------|-------------|----------------------------|--|---|
| 1. | Head Azimuth | TCC-155 14kHz (A.BEX) | FWD play (A & B Deck) REV play (B Deck) | | Line output | ACmV-meter Oscilloscope | Head adjusting screw (lefts side) Head adjusting screw (right side) | Max. ^{*a} • Lissajous' figure become a straight line with an angle 45 degrees |
| 2. | Playback Speed at normal | TCC-112 3kHz -10dB(A.BEX) | Play (A & B Deck) | | | Wow and Flutter Meter | A Deck VR901 & B Deck VR903 | 3000Hz ± 30Hz ^{*b} |
| 3. | Playback Speed at Hi-speed | TCC-112 3kHz -10dB(A.BEX) | | | | | A Deck VR902 & B Deck VR904 | |
| 4. | Playback level | TCC-130 400Hz 0dB (A.BEX) | | | | ACmV-meter | A Deck VR201L/R B Deck VR101L/R | 4500Hz ± 90Hz • TP901(R915)GND |
| 5. | Playback frequency response | TCC-185C 12.5kHz1kHz 60Hz(A.BEX) | | | | ACmV-meter | | 500mV See graph Fig.1 freg. response |

Recording section

| No. | Adjustments | Test tape | Mode | Apply signal to | Measure on | Read on | Adjust with | Adjust to |
|-----|-------------------------|--|------|-----------------|--------------------------------|----------------------------|-------------------|--------------------------------------|
| 1. | Bias OSC Frequency | CrO ₂ TDK AC-513 | | | White color leadwire of CNT501 | Frequency Counter | OSC(L501) | 105kHz |
| 2. | 105kHz trap suppression | | | | TP501L/R | ACmV-meter Oscilloscope | L503L/R | Minimize the reading on ACVM 66mV |
| 3. | Target value Bias | CrO ₂ TDK, AC-513 Normal TDK, AC-224 | | | TP201L/R | | VR502L/R VR510 | 34mV |

| No. | Adjustments | Test tape | Mode | Apply signal to | Measure on | Read on | djust with | Adjust to |
|-----|-----------------|---------------------|-----------|---|---------------|----------------------------|--------------------------|--|
| 4. | Recording Level | CrO2 TDK, AC-513 | | 400Hz/ -20dBV to line in | TP801L/R | ACmV-meter Oscilloscope | VR801L/R | *c About 14mV |
| | | | | Record the Above signal onto Test tape & PB | EXT Output | | | Repeatedly record PB & adjust so that the PB signal level becomes -10dBV ± 0.5dB |
| 5. | Bias | | Rec/Pause | | EXT Output | ACmV-meter | See target value bias | *d if it necessary repeat bias adjust. |
| | | | | 400Hz to Line in | | | LF Generator | |
| | | | | 4kHz-6.3kHz Record/Playback a number of 10kHz-12kHz frequency with the same input 14kHz-16kHz voltage and play them back. to line input. | | | | |

Note :

- *a. Prior to any measurement or adjustment with the tape running heads and tape guides should be degaussed and cleaned. Reference below the figure.
- *b. The maximum permissible speed variation $\pm 0.5\%$. Moreover the Wow and Flutter can be read. This value should not be exceed 0.2%.
- *c. The Voltage on Line out should read 500mV \pm 20mV. If this is not the case reduce the LF signal(bias disabled) by as many dBs as the reading was too low or too high by means of VR801L/R
- *d. When the channel is adjusted this may slightly affect the adjustment of the other channel. If the adjustment is correct the frequency response curve will be similar to curve b in figure 2 distortion below 3%.

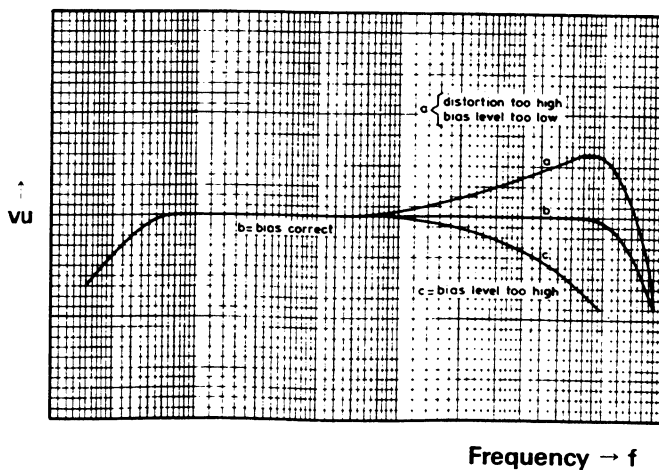


Fig. 2

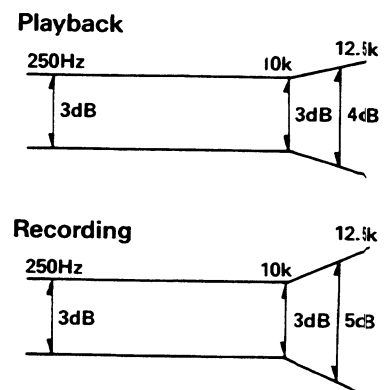
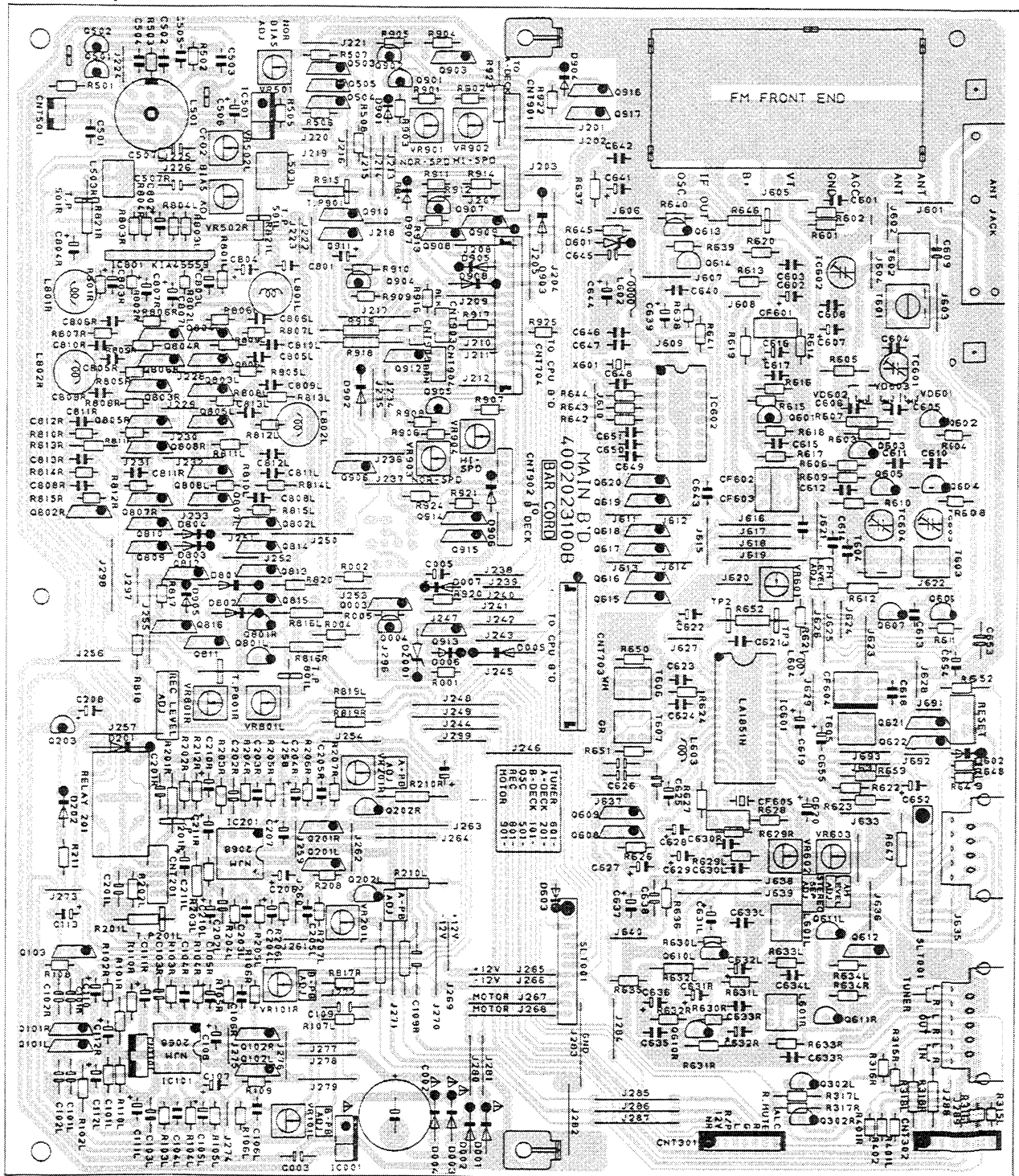
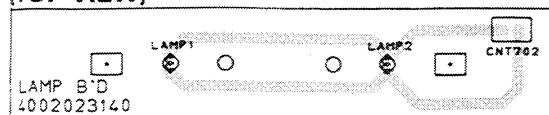


Fig. 1 Allowable Playback/Recording Frequency Response Zine

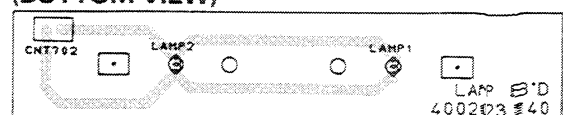
P.C.BOARDS (Top & Bottom Views) TDD-33R **MAIN P.C.BOARD** **(TOP VIEW)**



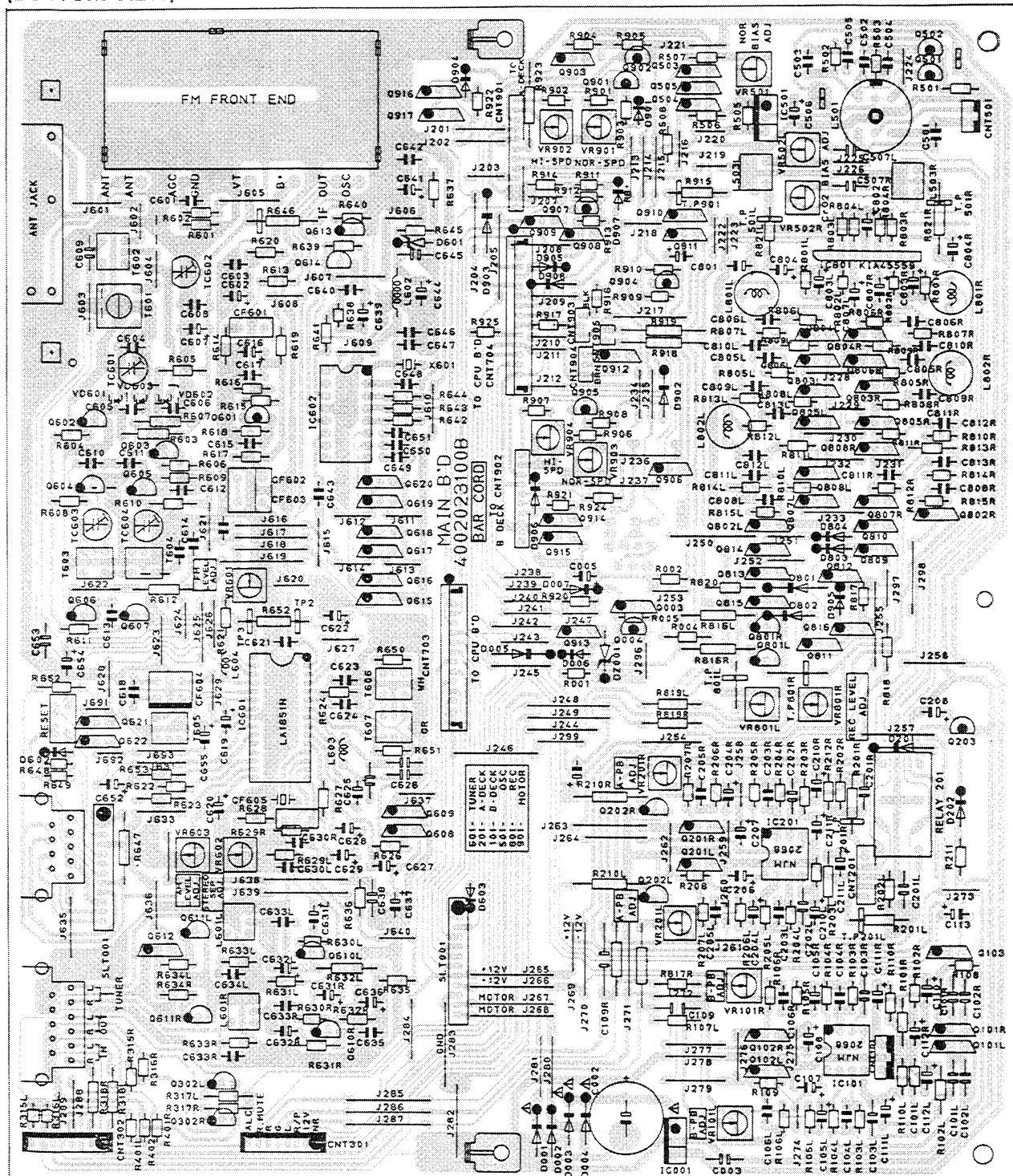
LAMP P.C.BOARD
(TOP VIEW)



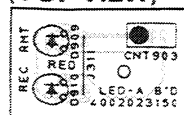
(BOTTOM VIEW)



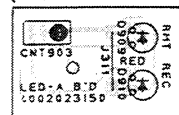
MAIN P.C.BOARD (BOTTOM VIEW)



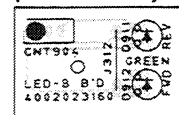
LED(A) P.C.BOARD (TOP VIEW)



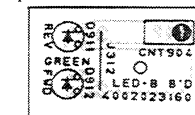
(BOTTOM VIEW)



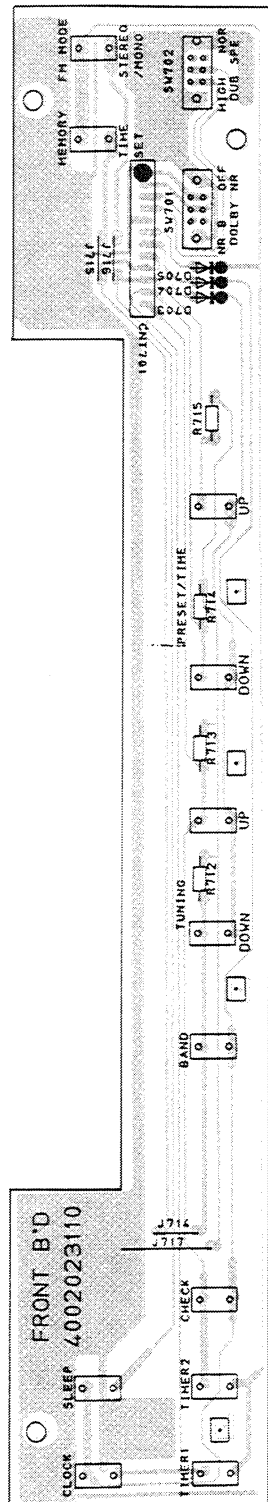
LED(B) P.C.BOARD (TOP VIEW)



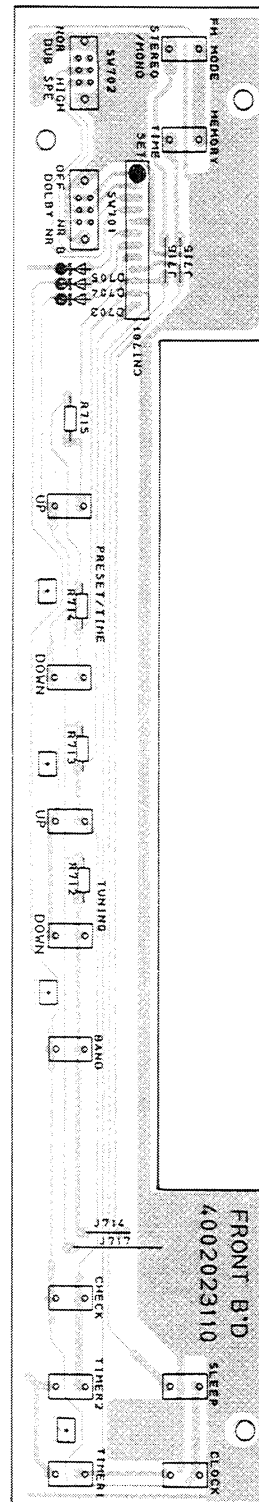
(BOTTOM VIEW)



**FRONT P.C.BOARD
(TOP VIEW)**

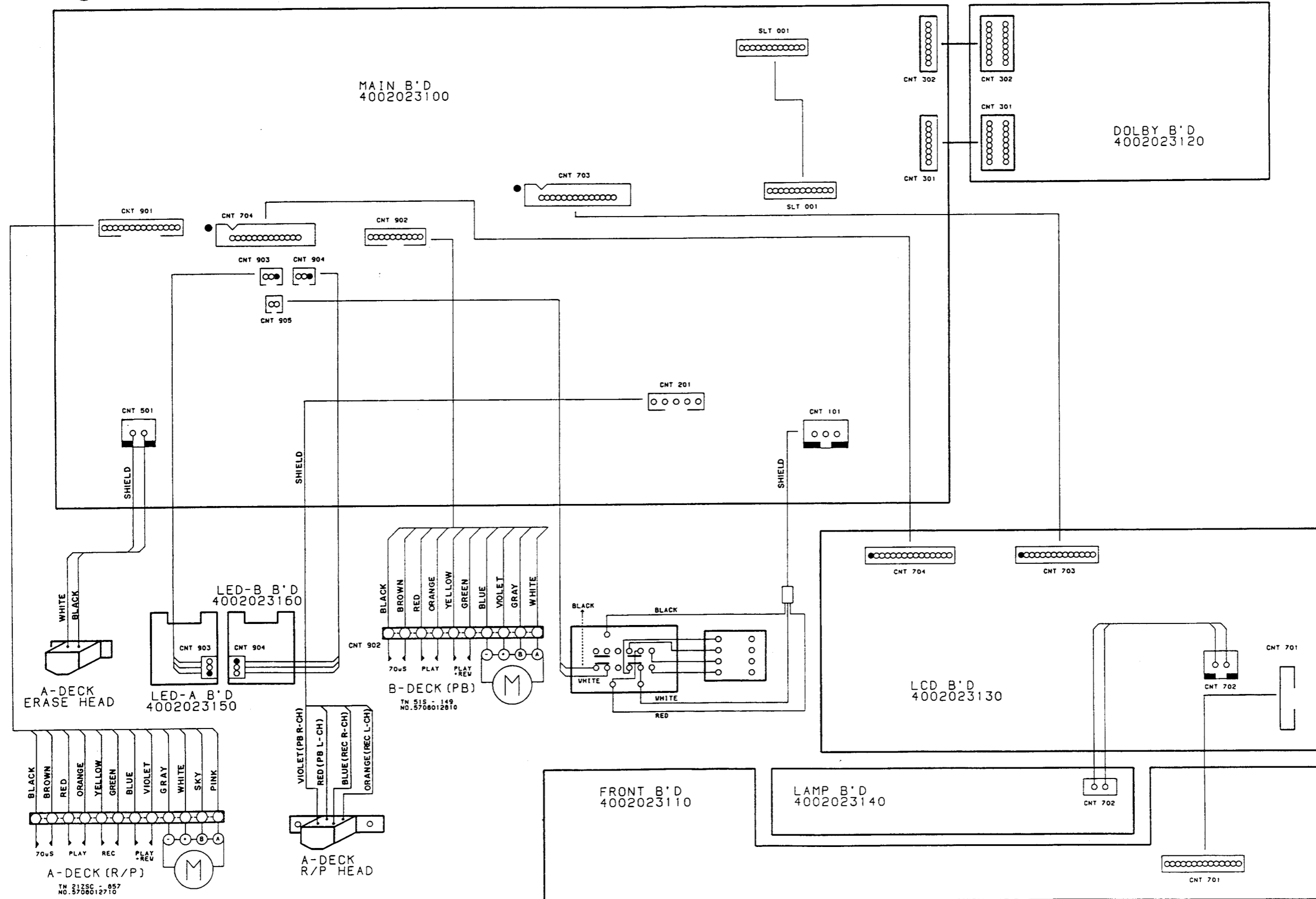


(BOTTOM VIEW)



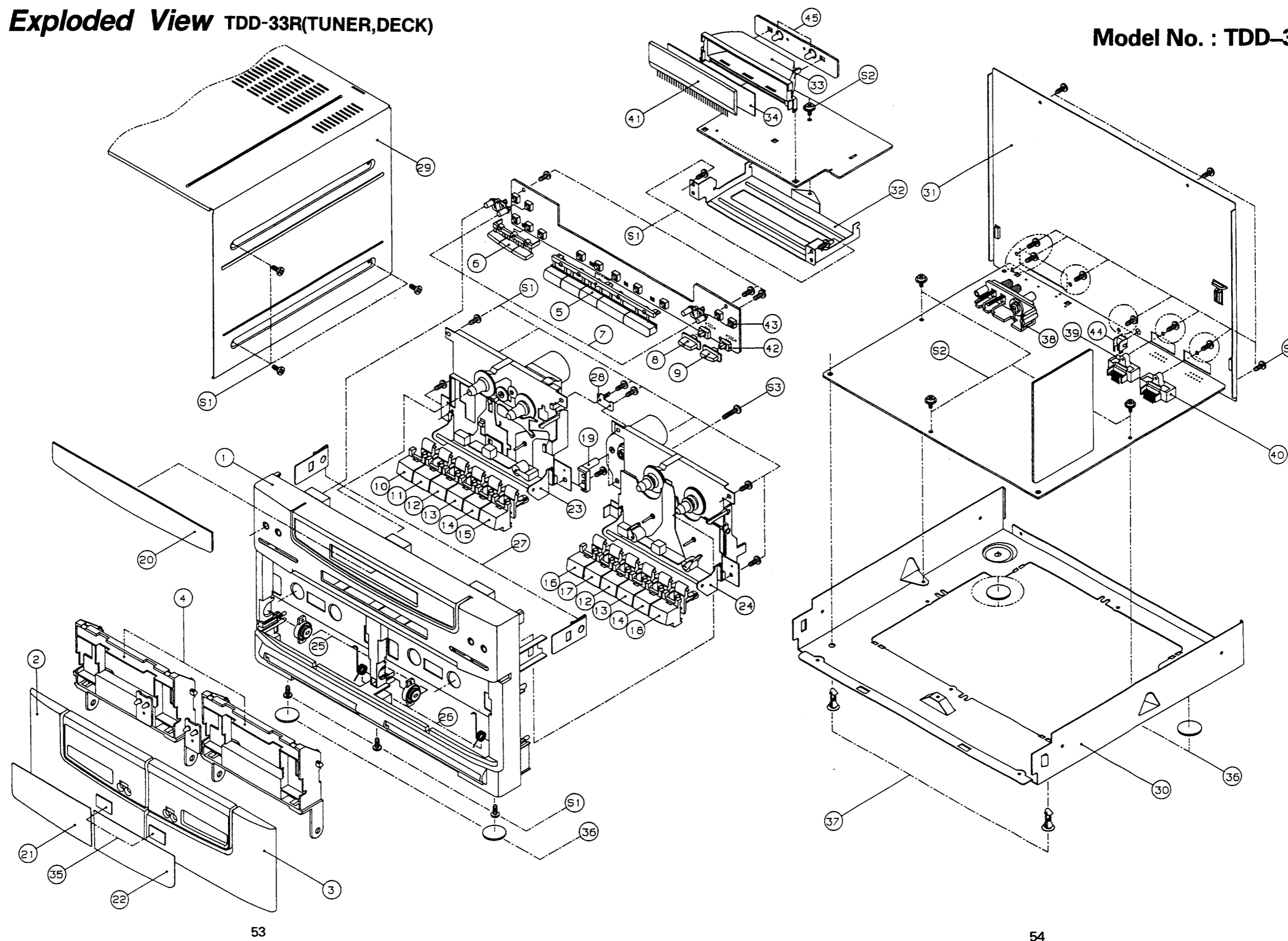
Wiring Diagram TDD-33R(TUNER,DECK)

Model No. : TDD-33R



Exploded View TDD-33R(TUNER,DECK)

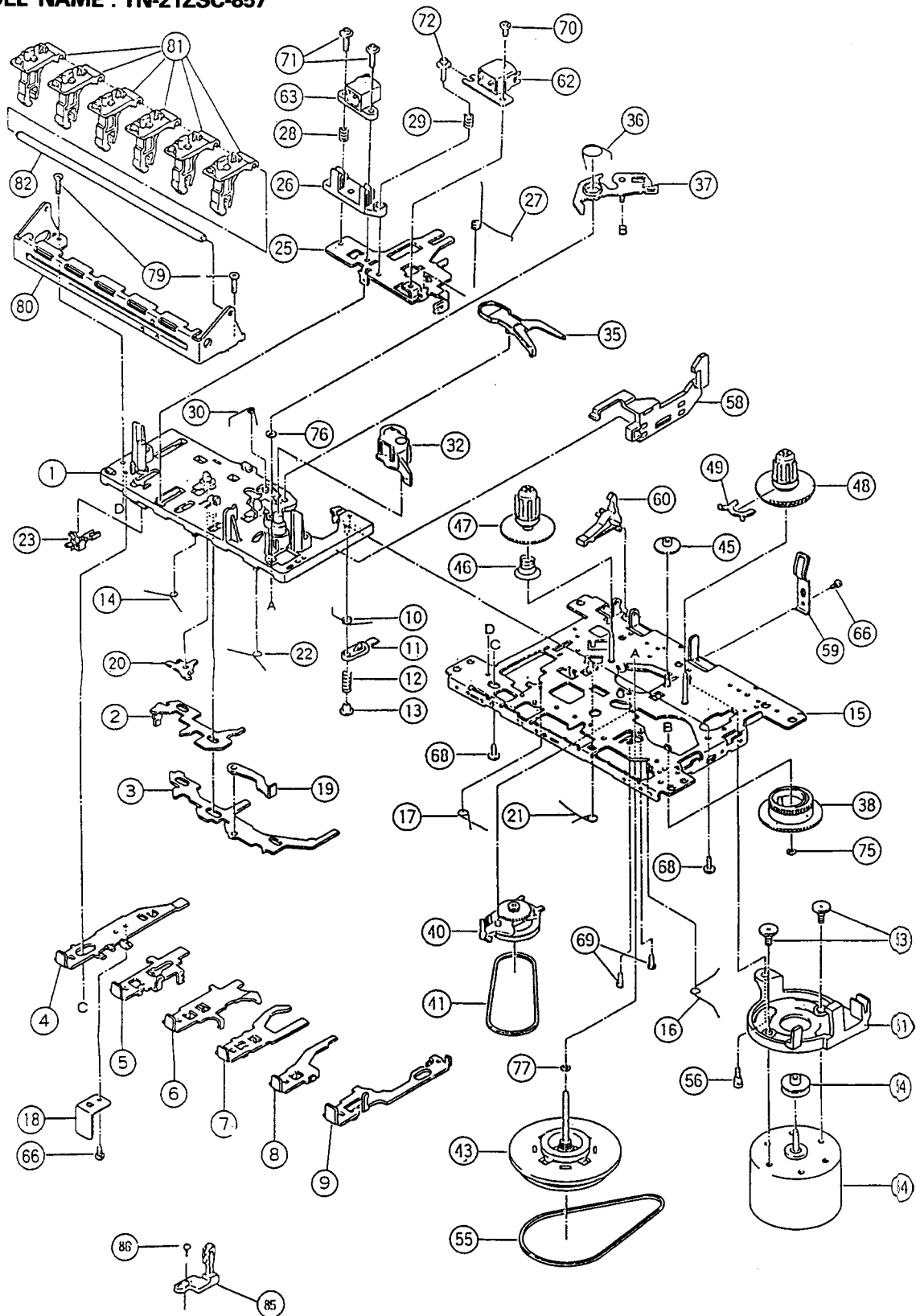
Model No. : TDD-33R



Exploded View(I) (Deck Mechanism Ass'y)

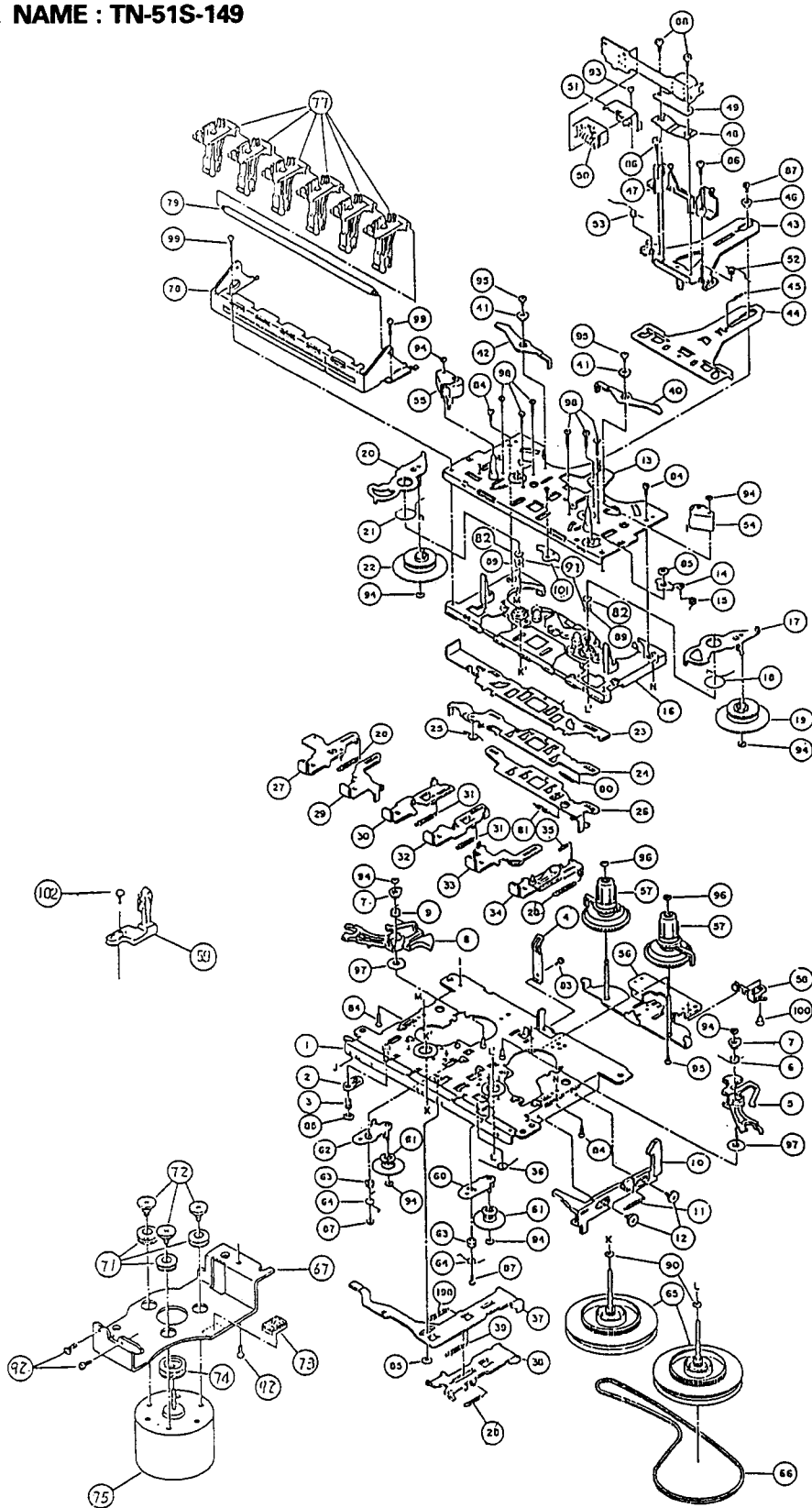
Model No. : TDD-33R

MODEL NAME : TN-21ZSC-857



Model No. : TDD-33R

MODEL NAME : TN-51S-149



Electrical Parts List TDD-33R(TUNER,DECK)

PRODUCT SAFETY NOTICE : If you replace any of these components, Carefully read the product safety notice of this manual. Don't degrade the safety of the product through improper servicing. Remark meaning for version, so refer to power requirement of Specifications in this manual. Resistors & Capacitors tolerance ; D : ($\pm 0.5\%$), J : ($\pm 5\%$), K : ($\pm 10\%$), M : ($\pm 20\%$), Z : ($+80\%$, -20%).

| Ref.No | Part No. | Description | Remark |
|-----------------------|------------|------------------------------|--------|
| Main P.C.Board | | | |
| Capacitors | | | |
| C001 | . | Not used ! | |
| C002 | 3409247149 | Electric SA 470 μ F 25V | M |
| C003 | 3519104935 | Ceramic 0.1 μ F 50V | Z |
| C004 | . | Not used ! | |
| C005 | 3479210121 | Mylar 100 μ F 100V | J |
| C101L/R | 3519102935 | Ceramic 1000pF 50V | Z |
| C102L/R | 3519102935 | Ceramic 1000pF 50V | Z |
| C103L/R | 3519101935 | Ceramic 100pF 50V | Z |
| C104L/R | 3679822120 | Mylar 0.0082 μ F 100V | J |
| C105L/R | 3479210971 | Electric SA 1 μ F 50V | M |
| C106L/R | 3679203120 | Mylar 0.02 μ F 100V | J |
| C107/C108 | 3479233041 | Electric SA 33 μ F 25V | M |
| C109L/R | 3519391935 | Ceramic 390pF 50V | J |
| C110 | 3479247971 | Electric SA 4.7 μ F 50V | M |
| C111L/R | 3479210971 | Electric SA 1 μ F 50V | M |
| C112L/R | 3479210121 | Electric SA 100 μ F 10V | M |
| C113 | 3479210971 | Electric SA 4.7 μ F 50V | M |
| C201L/R | 3519681935 | Ceramic 680pF 50V | Z |
| C202L/R | 3519101935 | Ceramic 100pF 50V | Z |
| C203L/R | 3679822120 | Mylar 0.0082 μ F 100V | J |
| C204L/R | 3479210971 | Electric SA 1 μ F 50V | M |
| C205L/R | 3679203120 | Mylar 0.02 μ F 100V | J |
| C206/C207 | 3479233041 | Electric SA 33 μ F 25V | M |
| C208L/R | . | Not used ! | |
| C209 | 3479210071 | Electric SA 10 μ F 50V | M |
| C210L/R | 3479210971 | Electric SA 1 μ F 50V | M |
| C211L/R | 3479210121 | Electric SA 100 μ F 10V | M |
| C501 | 3609272130 | Mylar 0.0027 μ F 160V | J |
| C502 - C505 | 3679103120 | Mylar 0.01 μ F 100V | J |
| C506 | . | Not used ! | |
| C507L/R | 3519471935 | Ceramic 470pF 50V | Z |
| C601 | 3519223935 | Ceramic 0.022 μ F 50V | |
| C601 | . | Not used ! | |
| C602 | 3479210131 | Electric SA 100 μ F 16V | M |
| C603 | 3519223935 | Ceramic 0.022 μ F 50V | Z |
| C604 | 3519150935 | Ceramic 15pF 50V | Z LW |
| C605 | 3519103935 | Ceramic 0.01 μ F 50V | Z LW |
| C606 | 3519473935 | Ceramic 0.047 μ F 50V | Z |
| C607 | 3479247871 | Electric SA 0.47 μ F 50V | M |
| C608 - 609 | 3519223935 | Ceramic 0.022 μ F 50V | Z |
| C610 | 3619471110 | Poly 470pF 50V | J |
| C611 | 3619181110 | Poly 180pF 50V | J LW |
| C612 | . | Not used ! | |
| C613 | 3519223935 | Ceramic 0.022 μ F 50V | Z LW |
| C614 - 615 | 3519223935 | Ceramic 0.022 μ F 50V | Z |
| C616 | 3479247041 | Electric SA 47 μ F 25V | M |
| C617 | 3519223935 | Ceramic 0.022 μ F 50V | Z |
| C618 | 3519470935 | Ceramic 47pF 50V | Z |
| C619 | 3479210971 | Electric SA 1 μ F 50V | M |

| Ref.No | Part No. | Description | Remark |
|---------------------------|------------|------------------------------|--------|
| C620 | 3479210071 | Electric SA 10 μ F 50V | M |
| C621 | 3519473935 | Ceramic 0.047 μ F 50V | Z |
| C622 | 3479233971 | Electric SA 3.3 μ F 50V | M |
| C622 | 3479247871 | Electric SA 0.47 μ F 50V | M |
| C623 | 3679392120 | Mylar 0.0039 μ F 100V | J |
| C624 | 3679183120 | Mylar 0.018 μ F 100V | J |
| C625 | 3479210071 | Electric SA 10 μ F 50V | M |
| C626 | 3519330935 | Ceramic 33pF 50V | Z |
| C627 | 3479210971 | Electric SA 1 μ F 50V | M |
| C628 | 3479233871 | Electric SA 0.33 μ F 50V | M |
| C629 | 3479210971 | Electric SA 1 μ F 50V | M |
| C630L/R | 3679562120 | Mylar 0.0056 μ F 100V | J |
| C630L/R | 3679822120 | Mylar 0.0082 μ F 100V | J |
| C631L/R | 3479233971 | Electric SA 3.3 μ F 50V | M |
| C632L/R | 3479233971 | Electric SA 3.3 μ F 50V | M |
| C633L/R | 3679222120 | Mylar 0.0022 μ F 100V | J |
| C634L/R | 3679392120 | Mylar 0.0039 μ F 100V | J |
| C635 | 3519223935 | Ceramic 0.022 μ F 50V | Z |
| C636/637 | 3479247041 | Electric SA 47 μ F 25V | M |
| C638 | 3519223935 | Ceramic 0.022 μ F 50V | Z |
| C639 | 3479210971 | Electric SA 1 μ F 50V | M |
| C640 | 3519103935 | Ceramic 0.01 μ F 50V | Z |
| C641 | 3479247041 | Electric SA 47 μ F 25V | M |
| C642 | 3519223935 | Ceramic 0.022 μ F 50V | Z |
| C643 | 3519103935 | Ceramic 0.01 μ F 50V | Z |
| C644 | 3479247041 | Electric SA 47 μ F 25V | M |
| C645 | 3519223935 | Ceramic 0.022 μ F 50V | Z |
| C646 | . | Not used ! | |
| C647 - 648 | 3519330935 | Ceramic 33pF 50V | Z |
| C647 - 648 | 3519470935 | Ceramic 47pF 50V | Z |
| C649 - 651 | 3519101935 | Ceramic 100pF 50V | Z |
| C652 | 3479222971 | Electric SA 2.2 μ F 50V | M |
| C652 | 3479233971 | Electric SA 3.3 μ F 50V | M |
| C653 | 3519223935 | Ceramic 0.022 μ F 50V | Z |
| C654 | 3479247041 | Electric SA 47 μ F 25V | M |
| C655 | 3479233971 | Electric SA 3.3 μ F 50V | M |
| C655 | 3479210071 | Electric SA 10 μ F 50V | M |
| C801/C802 | 3479233041 | Electric SA 33 μ F 25V | M |
| C802 | 3479233041 | Electric SA 33 μ F 25V | M |
| C803L/R | 3479222871 | Electric SA 0.22 μ F 50V | M |
| C804L/R | 3479210971 | Electric SA 1 μ F 50V | M |
| C805L/R | 3679103120 | Mylar 0.01 μ F 100V | J |
| C806L/R | 3679273120 | Mylar 0.27 μ F 100V | J |
| C807L/R | 3479210971 | Ceramic 1 μ F 50V | M |
| C808L/R | 3679393120 | Mylar 0.033 μ F 100V | J |
| C809L/R | 3679203120 | Mylar 0.02 μ F 100V | J |
| C810L/R | 3679203120 | Mylar 0.02 μ F 100V | J |
| C811L/R | 3679153120 | Mylar 0.015 μ F 100V | J |
| C812L/R | 3679223120 | Mylar 0.022 μ F 100V | J |
| C813L/R | 3679103120 | Mylar 0.01 μ F 100V | J |
| Trimmer Capacitors | | | |
| TC601 | 3838001010 | Trimmer 20P | LW |
| TC602 | 3838001010 | Trimmer 20P | |
| TC603 | 3838001000 | Trimmer 10P | |
| TC604 | 3838001010 | Trimmer 20P | LW |

| Ref.No | Part No. | Description | Remark |
|-------------------|------------|-------------------------------|------------------|
| Connectors | | | |
| SLT001 | 4119212145 | Wire 12P | |
| CNT101 | 4428517610 | Plug 3P | |
| CNT201 | 4428516410 | Plug 5P | |
| CNT301 | 4428560080 | Plug 8P | |
| CNT302 | 4428560080 | Plug 8P | |
| CNT501 | 4428517510 | Plug 2P | |
| CNT703 | 4428532020 | Wire Trap 12P, From LCD Board | |
| CNT704 | 4428532120 | Wire Trap 3P, From LCD Board | |
| CNT901 | 4428517110 | Plug 12P | |
| CNT902 | 4428516910 | Plug 10P | |
| CNT903 | 4428525440 | Plug 3P | |
| CNT904 | 4428526440 | Plug 3P | |
| CNT905 | 4428516110 | Plug 2P | |
| Coils | | | |
| L301L/R | . | Not used ! | |
| L501 | 2638601150 | OSC, 105kHz | |
| L601L/R | 2658301100 | MPX 19kHz Filter | |
| T601 | 2608201130 | LW ANT Coil | LW |
| T602 | 2608201120 | AM ANT Coil | |
| T603 | 2638201150 | AM OSC Coil | |
| T604 | 2638401160 | LW OSC Coil | LW |
| T605 | 2848001250 | AM IFT Coil | |
| T606 | 2628000070 | FM FM DET, White | |
| T607 | 2628000060 | FM DET, Green | |
| AM ANT Loop | 2608207360 | AM ANT Loop | |
| L801L/R | 2648601700 | Induct, 5.5mH | |
| L802L/R | 2648601140 | Induct, 3.0mH | |
| L803L/R | 2658501080 | Trap, 105KHz | |
| Diodes | | | |
| D001 - D004 | 2258106100 | 1N4002 | |
| D005 - D007 | 2058322101 | 1N4148M | |
| D201 | 2258106100 | 1N4002 | |
| D202 | 2058322101 | 1N4148M | |
| D401 | 2058322101 | 1N4148M | |
| D601 | 2058599103 | Zener, MTZ 5.1 | |
| D602 | 2058322101 | 1N4148M | |
| D603 | 2058322101 | 1N4148M | |
| D603 | . | Jumper | C,D,E,F DOM,A |
| D801 - D805 | 2058322101 | 1N4148M | |
| D901 - D912 | 2058322101 | 1N4148M | |
| ZD001 | 2258599107 | Zener, UZ 9.1B | |
| VD601 - 603 | 2058819105 | Varactor, KV1235Z | |
| VD602 - 603 | 2058819106 | Varactor, KV1236Z | LW |

| Ref.No | Part No. | Description | Remark |
|------------------------|------------|-----------------------------|---------|
| Ceramic Filters | | | |
| CF601 - 602 | 3908011001 | Ceramic Filter 10.7MA8K - A | DOM,A |
| CF601 - 602 | 3908011011 | Ceramic Filter 10.7MS3GH | C,D,E,F |
| CF603 | . | Not used ! | DOM,A |
| F603 | 3908011011 | Ceramic Filter 10.7MS3GH | D |
| CF604 | 3908001150 | Ceramic Filter SFZ450B | |
| CF605 | 3938131600 | Resonator CSB456F | |
| X601 | 3908101030 | X - TAL 7.2MHz | DOM,A |
| X601 | 3908101031 | X - TAL 7.2MHz | C,D,E,F |
| IC's | | | |
| IC001 | 2168606104 | KIA78012AP, Regulator | |
| IC101 | 2168020106 | NJM2068D, PB Amp. | |
| IC201 | 2168020106 | NJM2068D, PB Amp. | |
| IC501 | 2168600112 | ADJ LM317, Regulator | |
| IC601 | 2168417114 | LA1851N, IF+MPX | |
| IC602 | 2168007205 | TC9216P, PLL IC | |
| IC801 | 2168206103 | KIA4559S, REC AMP. | |
| Front END | | | |
| FM Front - END | 3928801930 | FE 306 - A15 | DOM,A |
| FM Front - END | 3928801970 | FE 407 - A15 | C,E,F |
| FM Front - END | 3928818900 | FE 407 - G60 | D |
| Relay | | | |
| RLY201 | 5528001020 | RELAY, RZ - 12V | |
| Resistors | | | |
| R001 | 3069331970 | 330Ω | |
| R002 | 3069513970 | 51kΩ | |
| R003 | . | Not used ! | |
| R004 | 3069153970 | 15kΩ | |
| R005 | 3069562970 | 5.6kΩ | |
| R101L/R | 3069274970 | 270kΩ | |
| R102L/R | 3069101970 | 10Ω | |
| R103L/R | 3069274970 | 270kΩ | |
| R104L/R | 3069223970 | 22kΩ | |
| R105L/R | 3069332970 | 3.3kΩ | |
| R106L/R | 3069392970 | 3.9kΩ | |
| R107L/R | 3069333970 | 33kΩ | |
| R108/R109 | 3069103970 | 10kΩ | |
| R110L/R | 3069104970 | 100kΩ | |
| R201L/R | 3069101970 | 100Ω | |
| R202L/R | 3069274970 | 270kΩ | |
| R203L/R | 3069101970 | 100Ω | |
| R204L/R | 3069274970 | 270kΩ | |
| R205L/R | 3069223970 | 22kΩ | |
| R206L/R | 3069332970 | 3.3kΩ | |
| R207L/R | 3069392970 | 3.9kΩ | |
| R208 | 3069103970 | 10kΩ | |
| R209L/R | 3069333970 | 33kΩ | |
| R210L/R | 3069332970 | 3.3kΩ | |
| R211 | 3069103970 | 10kΩ | |
| R212L/R | 3069104970 | 100kΩ | |
| R213 | 3069473970 | 47kΩ | |
| R315L/R | 3069102970 | 1Ω | |
| R316L/R | 3069103970 | 10kΩ | |
| R317L/R | 3069332970 | 3.3kΩ | |

| Ref.No | Part No. | Description | Remark |
|-------------|------------|---------------|-------------|
| R318L/R | 3069473970 | 47k Ω | |
| R401L/R | 3069333970 | 33k Ω | |
| R402 | 3069123970 | 12k Ω | |
| R501 | 3069100970 | 10 Ω | |
| R502 | 3069333970 | 33k Ω | |
| R503 | 3069333970 | 33k Ω | |
| R504 | . | Not used ! | |
| R505 | 3069103970 | 10k Ω | |
| R506 | 3069123970 | 12k Ω | |
| R507 | 3069102970 | 1k Ω | |
| R508 | 3069103970 | 10k Ω | |
| R601 | . | Not used ! | DOM,A |
| R601 | 3069823970 | 82k Ω | C,E,F |
| R601 | 3069104970 | 100k Ω | D |
| R602 | 3069104970 | 100k Ω | C,D,E,F |
| R602 | . | Not used ! | DOM,A |
| R603 | 3069104970 | 100k Ω | LW |
| R604 | 3069473970 | 47k Ω | LW |
| R605 | 3069104970 | 100k Ω | |
| R606 | 3069473970 | 47k Ω | LW |
| R607 | 3069104970 | 100k Ω | |
| R608 | 3069473970 | 47k Ω | LW |
| R609 | 3069155970 | 1.5M Ω | LW |
| R610 - R612 | 3069473970 | 47k Ω | LW |
| R613 | 3069181970 | 180 Ω | DOM,A,C,E,F |
| R613 | . | Jumper | D |
| R614 | 3069561970 | 560 Ω | DOM,A,C,E,F |
| R614 | . | Not used ! | D |
| R615 | 3069102970 | 1k Ω | D |
| R615 | 3069333970 | 3.3k Ω | DOM,A,C,E,F |
| R616 | 3069561970 | 560 Ω | |
| R617 - R618 | 3069333970 | 330 Ω | |
| R619 - R620 | 3069820970 | 82 Ω | C,D,E,F |
| R619 - R620 | 3069181970 | 180 Ω | DOM,A |
| R621 | 3069393970 | 39k Ω | |
| R622 | 3069223970 | 22k Ω | |
| R623 | 3069273970 | 27k Ω | |
| R624 | 3069123970 | 12k Ω | DOM,A |
| R624 | 3069473970 | 47k Ω | C,D,E,F |
| R625 | . | Not used ! | |
| R626 | 3069333970 | 3.3k Ω | |
| R627 | 3069512970 | 5.1k Ω | |
| R628 | 3069221970 | 220 Ω | |
| R629L/R | 3069103970 | 10k Ω | |
| R630L/R | 3069824970 | 820k Ω | |
| R631L/R | 3069302970 | 3k Ω | DOM,A |
| R631L/R | 3069202970 | 2k Ω | C,D,E,F |
| R632L/R | 3069512970 | 5.1k Ω | |
| R633L/R | 3069333970 | 3.3k Ω | |
| R634L/R | 3069333970 | 3.3k Ω | |
| R635 | 3069221970 | 220 Ω | |
| R636 | 3069101970 | 100 Ω | |
| R637 | 3069221970 | 220 Ω | |
| R638 | 3069152970 | 1.5k Ω | |
| R639 | 3069103970 | 10k Ω | |
| R640 | 3069101970 | 100 Ω | |
| R641 | 3069821970 | 820 Ω | |
| R642 - R644 | 3069102970 | 1k Ω | |
| R645 | 3069221970 | 220 Ω | |
| R646 | 3069102970 | 1k Ω | |

| Ref.No | Part No. | Description | Remark |
|--------------------|------------|---------------|--------|
| R647 | 3069103970 | 10k Ω | |
| R648 | 3069223970 | 22k Ω | |
| R649 | 3069224970 | 220k Ω | |
| R650 | 3069333970 | 3.3k Ω | |
| R651 | 3069822970 | 8.2k Ω | |
| R652 | 3069102970 | 1k Ω | |
| R653 | 3069153970 | 15k Ω | |
| R801L/R | 3069564970 | 560k Ω | |
| R802L/R | 3069682970 | 6.8k Ω | |
| R803L/R | 3069392970 | 3.9k Ω | |
| R804L/R | 3069473970 | 47k Ω | |
| R805L/R | 3069203970 | 20k Ω | |
| R806L/R | 3069302970 | 3k Ω | |
| R807L/R | 3069123970 | 12k Ω | |
| R808L/R | 3069101970 | 100 Ω | |
| R809L/R | 3069470970 | 47 Ω | |
| R810L/R | . | Not used ! | |
| R811L/R | 3069100970 | 10 Ω | |
| R812L/R | 3069362970 | 3.6k Ω | |
| R813L/R | 3069273970 | 3.6k Ω | |
| R814L/R | 3069183970 | 18k Ω | |
| R815L/R | 3069152970 | 1.5k Ω | |
| R816L/R | 3069102970 | 1k Ω | |
| R817 | 3069102970 | 1k Ω | |
| R818 | 3069822970 | 8.2k Ω | |
| R819L/R | 3069102970 | 1k Ω | |
| R820 | 3069103970 | 10k Ω | |
| R821 | 3069562970 | 5.6k Ω | |
| R901 | 3069221970 | 220 Ω | |
| R902 | 3069102970 | 1k Ω | |
| R903 | 3069473970 | 47k Ω | |
| R904 | 3069102970 | 1k Ω | |
| R905 | 3069223970 | 22k Ω | |
| R906 | 3069221970 | 220 Ω | |
| R907 | 3069102970 | 1k Ω | |
| R908 | 3069473970 | 47k Ω | |
| R909 | 3069102970 | 1k Ω | |
| R910 | 3069223970 | 22k Ω | |
| R911 | 3069822970 | 8.2k Ω | |
| R912 | 3069473970 | 47k Ω | |
| R913/R914 | 3069562970 | 5.6k Ω | |
| R915 | 3069103970 | 10k Ω | |
| R916 | 3069102970 | 1k Ω | |
| R917 | 3069221970 | 220 Ω | |
| R918/R919 | 3069102970 | 1k Ω | |
| R920 | 3069103970 | 10k Ω | |
| R921/R922 | 3069561970 | 560 Ω | |
| R923/R924 | 3069102970 | 1k Ω | |
| R925 | 3069822970 | 8.2k Ω | |
| Transistors | | | |
| Q001/Q002 | . | Not used ! | |
| Q003 | 2208622108 | DTC114TS NPN | |
| Q004 | 2208206113 | KMPS A56 PNP | |
| Q101L/R | 2208622108 | DTC114TS NPN | |
| Q102L/R | 2208622108 | DTC114TS NPN | |
| Q103 | 2208622106 | DTC114YS NPN | |
| Q201L/R | 2208622108 | DTC114TS NPN | |
| Q202L/R | 2208606112 | KTD1302S NPN | |

| Ref.No | Part No. | Description | Remark | |
|--------------------|--------------|------------------------------|----------------------|--|
| Q203 | 2208606114 | KMPS A06 NPN | LW | |
| Q302L/R | 2208606112 | KTD1302S NPN | | |
| Q501 – Q502 | 2208606114 | KMPS A06 NPN | | |
| Q503 – Q504 | 2208622108 | DTC114TS NPN | | |
| Q505 | 2208622105 | DTA114YS PNP | | |
| Q601 | 2208409101 | LM9018F NPN | | |
| Q602 – Q607 | 2208606104 | KTC1815Y NPN | | |
| Q608 | 2208622105 | DTA114YS PNP | | |
| Q609 | 2208622108 | DTC114TS NPN | | |
| Q610L/R | 2208606108 | KTC2240BL NPN | | |
| Q611L/R | 2208606112 | KTD1302S NPN | | |
| Q612 | 2208622105 | DTA114YS PNP | | |
| Q613 | 2208606108 | KTC2240BL NPN | | |
| Q614 | 2208211100 | 2SK168D FET | | |
| Q615 | 2208622105 | DTA114YS PNP | | |
| Q616 | 2208622108 | DTC114TS NPN | | |
| Q617 | 2208622105 | DTA114YS PNP | | |
| Q618 | 2208622108 | DTC114TS NPN | | |
| Q619 | 2208622105 | DTA114YS PNP | | |
| Q620 – Q622 | 2208622108 | DTC114TS NPN | | |
| Q801L/R | 2208606112 | KTD1302S NPN | LW LW LW LW | |
| Q802L/R | 2208622108 | DTC114TS NPN | | |
| – 808L/R | | | | |
| Q809 – Q812 | 2208622105 | DTA114YS PNP | | |
| Q813 – Q815 | 2208622106 | DTC114YS NPN | | |
| Q901 – Q902 | 2208206113 | KMPS A56 PNP | | |
| Q903 | 2208622106 | DTC114YS NPN | | |
| Q904 – Q905 | 2208206113 | KMPS A56 PNP | | |
| Q906 | 2208622106 | DTC114YS NPN | | |
| Q907 | 2208206113 | KMPS A56 PNP | | |
| Q908 – Q913 | 2208622106 | DTC114YS NPN | | |
| Q914 | 2208622105 | DTA114YS PNP | | |
| Q915 | 2208622106 | DTC114YS NPN | | |
| Q916 | 2208622105 | DTA114YS PNP | | |
| Q917 | 2208622106 | DTC114YS NPN | | |
| Variable Resistors | | | | |
| VR101L/R | 3248020343 | Semi 20k Ω (B) | | |
| VR201L/R | 3248020343 | Semi 20k Ω (B) | | |
| VR501 | 3248050243 | Semi 5k Ω (B) | | |
| VR502L/R | 3248050343 | Semi 50k Ω (B) | | |
| VR601 | 3248050343 | Semi 50k Ω (B) | | |
| VR602 | 3248020243 | Semi 2k Ω (B) | | |
| VR603 | 3248020343 | Semi 20k Ω (B) | | |
| VR901 | 3248010243 | Semi 1k Ω (B) | | |
| VR902 | 3248010243 | Semi 1k Ω (B) | | |
| VR903 | 3248010243 | Semi 1k Ω (B) | | |
| VR904 | 3248010243 | Semi 1k Ω (B) | | |
| Other | | | | |
| - | 4228001410 | Terminal Ground | | |
| Front P.C.Board | | | | |
| Connector | | | | |
| CNT701 | 436212122132 | Ass'y 12P 120mm to LCD Board | | |

| Ref.No | Part No. | Description | Remark |
|-----------------|------------|-------------------------|--------|
| Diodes | | | |
| D703 - 705 | 2058322101 | 1N4148M | |
| Resistors | | | |
| R712 - R715 | 3069103970 | 10kΩ | |
| Dolby P.C.Board | | | |
| Capacitors | | | |
| C301L/R | 3479247971 | Electric SA 4.7uF 50V M | |
| C302L/R | . | Not used ! | |
| C303 | 3479210131 | Electric SA 100uF 16V M | |
| C304L/R | 3479210971 | Electric SA 1uF 50V M | |
| C305L/R | 3519561935 | Ceramic 560pF 50V Z | |
| C306 | 3479210121 | Electric SA 100uF 10V M | |
| C307 | 3479222071 | Electric SA 22uF 50V M | |
| C308L/R | 3479210071 | Electric SA 10uF 50V M | |
| C309L/R | 3479210071 | Electric SA 10uF 50V M | |
| C310L/R | 3479247971 | Electric SA 4.7uF 50V M | |
| C311L/R | 3479247971 | Electric SA 4.7uF 50V M | |
| C312L/R | 3479210971 | Electric SA 1uF 50V M | |
| C313L/R | 3479233041 | Electric SA 33uF 25V M | |
| C314 | 3479210971 | Electric SA 1uF 50V M | |
| C401 | 3479210971 | Electric SA 1uF 50V M | |
| C402 | 3479210071 | Electric SA 10uF 50V M | |
| C403 | 3479210871 | Electric SA 0.1uF 50V M | |
| C404 | 3479222971 | Electric SA 2.2uF 50V M | |
| C405 | 3479322121 | Electric SA 220uF 10V M | |
| Connectors | | | |
| CNT301 | 4428550080 | Plug 8P | |
| CNT302 | 4428550080 | Plug 8P | |
| Diode | | | |
| D401 | 2058322101 | 1N4148M | |
| IC | | | |
| IC301 | 2168011133 | HA12136A, Dolby | |
| Resistors | | | |
| R301L/R | 3069473970 | 47kΩ | |
| R302L/R | . | Not used ! | |
| R303L/R | 3069242970 | 2.4kΩ | |
| R304 | 3069100970 | 10Ω | |
| R305 /R306 | 3069103970 | 10kΩ | |
| R307 | 3069183970 | 18kΩ | |
| R308 | . | Not used ! | |
| R309 | 3069473970 | 47kΩ | |
| R310 | . | Not used ! | |
| R311L/R | 3069472970 | 4.7kΩ | |
| R312L/R | 3069394970 | 390kΩ | |
| R313L/R | 3069224970 | 220kΩ | |
| R314L/R | 3069102970 | 1kΩ | |
| R403 | 3069474970 | 470kΩ | |
| R404 | 3069512970 | 5.1kΩ | |
| R405 | 3069102970 | 1kΩ | |
| R406 | 3069563970 | 56kΩ | |
| R407 | 3069562970 | 5.6kΩ | |
| R408 | 3069335970 | 3.3MΩ | |
| R409 | 3069102970 | 1kΩ | |
| R410L/R | 3069562970 | 5.6kΩ | |
| R411L/R | 3069102970 | 1kΩ | |
| R412 | 3069332970 | 3.3kΩ | |
| R413L/R | 3069302970 | 3kΩ | |

| Ref.No | Part No. | Description | Remark |
|--------------------------|------------|-------------------------------|------------------------|
| Transistors | | | |
| Q301L/R | 2208606104 | KTC3198Y NPN | |
| Q401 - Q405 | 2208606104 | KTC3198Y NPN | |
| LCD P.C.Board | | | |
| Capacitors | | | |
| C701 | 3479210121 | Electric SA 100uF 10V M | |
| C702 | 3519223935 | Ceramic 0.022uF 50V Z | |
| C703 | 3479210971 | Electric SA 1uF 50V M | |
| C706 | 3519820935 | Ceramic 82pF 50V Z | |
| C707 | 3479210971 | Electric SA 1uF 50V M | |
| C708 | 3479247871 | Electric SA 0.47uF 50V M | |
| C709 | 3519103935 | Ceramic 0.01uF 50V Z | |
| C710 | 3479210971 | Electric SA 1uF 50V M | |
| Trimmer Capacitor | | | |
| TC701 | 3838001170 | Trimmer | |
| Connectors | | | |
| CNT701 | 4428517110 | Plug 12P | |
| CNT702 | 4428516110 | Plug 2P | |
| CNT703 | 4119212224 | Flat Wire 12P to Main B'D | |
| CNT704 | 4119213224 | Flat Wire 13P to Main B'D | |
| Diodes | | | |
| D701 - 702 | 2058322101 | 1N4148M | |
| D703 | | Not used ! | |
| D706 - 707 | 2058322101 | 1N4148M | |
| D708 | 2058599105 | Zener, UZ 6.2B | |
| D709 | 2058599123 | Zener, UZ 8.2B | |
| D710 - 711 | 2058322101 | 1N4148M | |
| D712 - 713 | 2058106100 | 1N4002 | |
| IC | | | |
| IC701 | 2138313159 | u - com, uPD75308GF - C7 | |
| LCD | | | |
| LCD | 2338009917 | SLC - 70030RS | |
| Resistors | | | |
| R701 | 3069102970 | 1k Ω | Domestic Domestic,A |
| R702 | 3069104970 | 100k Ω | |
| R703 | 3069334970 | 330k Ω | |
| R704 | 3069103970 | 10k Ω | |
| R705 | 3069103970 | 10k Ω | |
| R706 | 3069104970 | 100k Ω | |
| R707 | 3069101970 | 100 Ω | |
| R708 - 709 | 3069102970 | 1k Ω | |
| R710 - 711 | 3039680572 | M.O., 68 Ω 2W | |
| R713 | 3069100970 | 10 Ω | |
| R717 | 3069103970 | 10k Ω | |
| R718 - 720 | 3069333970 | 33k Ω | |
| | 3088473173 | 47k Ω , Array Resistor | |

| Ref.No | Part No. | Description | Remark |
|-------------------------|--------------|------------------------------|--------|
| Transistors | | | |
| Q701 | 2208206105 | KTA1015Y PNP | |
| Q702 | 2208606104 | KTC1815Y NPN | |
| Others | | | |
| X701 | 3938101880 | Resonator, 4.19MHz | |
| X702 | 3908101060 | X - Tal, 32.768KHz | |
| Battery | 5518001500 | Battery, NI - CD 3/60R | |
| Lamp P.C.Board | | | |
| Connector | | | |
| CNT702 | 436212122132 | Ass'y 2P, to LCD B'D | |
| LED(A) P.C.Board | | | |
| LEDs | | | |
| D909 - D910 | 2381215701 | SLR - 34URC - 80F | |
| Connector | | | |
| CNT903 | 435103262442 | Ass'y 3P 260mm to Main B'D | |
| LED(B) P.C.Board | | | |
| LEDs | | | |
| D911 - D912 | 2381215301 | SLR - 34GC - 80F | |
| Connector | | | |
| CNT904 | 435103262492 | Ass'y 3P 260mm to Main Board | |

Mechanical Parts List (TDD-33R)

| No. | Description | Part No. | Q'ty | Remark |
|-----|-----------------------|--------------|------|----------|
| 1 | Panel Front, Black | 048501023911 | 1 | Dom. |
| 1 | Panel Front, Black | 048501023912 | | Sherwood |
| 1 | Panel Front, Silver | 048501023921 | | Dom. |
| 1 | Panel Front, Silver | 048501023922 | | Sherwood |
| 2 | Door, A, Black | 048562002611 | 1 | Dom. |
| 2 | Door, A, Black | 048562002612 | | Sherwood |
| 2 | Door, A, Silver | 048562002621 | | Dom. |
| 2 | Door, A, Silver | 048562002622 | | Sherwood |
| 3 | Door, B, Black | 048562002711 | 1 | Dom. |
| 3 | Door, B, Black | 048562002712 | | Sherwood |
| 3 | Door, B, Silver | 048562002721 | | Dom. |
| 3 | Door, B, Silver | 048562002722 | | Sherwood |
| 4 | LID Casser, Black | 8562002810 | 2 | |
| 4 | LID Casser, Silver | 8562002820 | | |
| 5 | Button Tunner, Black | 048543043811 | 1 | Dom. |
| 5 | Button Tunner, Black | 048543043812 | | Sherwood |
| 5 | Button Tunner, Silver | 048543043821 | | Dom. |
| 5 | Button Tunner, Silver | 048543043822 | | Sherwood |
| 6 | Button 3Key, Black | 8545096710 | 1 | |
| 6 | Button 3Key, Silver | 8545096720 | | |
| 7 | Button 2Key, Black | 8545096610 | 2 | |
| 7 | Button 2Key, Silver | 8545096620 | | |
| 8 | Knob Slide A, Black | 8545097110 | 1 | |
| 8 | Knob Slide A, Silver | 8545097115 | | |
| 9 | Knob Slide B, Black | 8545097120 | 1 | |
| 9 | Knob Slide B, Silver | 8545097125 | | |
| 10 | Button REC., Black | 048545096911 | 1 | |
| 10 | Button REC., Silver | 048545096921 | | |
| 11 | Button Play A, Black | 048545096811 | 1 | |
| 11 | Button Play A, Silver | 048545096821 | | |
| 12 | Button REW, Black | 048545096812 | 2 | |
| 12 | Button REW, Silver | 048545096822 | | |
| 13 | Button FF, Black | 048545096813 | 2 | |
| 13 | Button FF, Silver | 048545096823 | | |
| 14 | Button ST/EJ, Black | 048545096814 | 2 | |
| 14 | Button ST/EJ, Black | 048545096824 | | |
| 15 | Button Pause, Black | 048545096815 | 1 | |
| 15 | Button Pause, Silver | 048545096825 | | |
| 16 | Button Mode, Black | 048545096816 | 1 | |
| 16 | Button Mode, Silver | 048545096826 | | |
| 17 | Button Play B, Black | 048545096817 | 1 | |
| 17 | Button Play B, Silver | 048545096827 | | |
| 18 | Button Drctn, Black | 048545097011 | 1 | |
| 18 | Button Drctn, Silver | 048545097021 | | |
| 19 | Bracket MTG | 6305006410 | 1 | |
| 20 | Inlay Tuner, Black | 048535036012 | 1 | |
| 20 | Inlay Tuner, Silver | 048535036014 | | Dom. |
| 20 | Inlay Tuner, Silver | 048535036017 | | Sherwood |
| 21 | Window Door A, Black | 048562002611 | 1 | Dom. |
| 21 | Window Door A, Black | 048562002612 | | Sherwood |
| 21 | Window Door A, Silver | 048562002621 | | Dom. |
| 21 | Window Door A, Silver | 048562002622 | | Sherwood |
| 22 | Window Door B, Black | 048562002711 | 1 | Dom. |
| 22 | Window Door B, Black | 048562002712 | | Sherwood |
| 22 | Window Door B, Silver | 048562002721 | | Dom. |
| 22 | Window Door B, Silver | 048562002722 | | Sherwood |
| 23 | Deck Mechanism A | 5708012710 | 1 | |
| 24 | Deck Mechanism B | 5708012810 | 1 | |
| 25 | Damper OIL | 6308001630 | 2 | |
| 26 | Spring Door | 6555607210 | 2 | |

| No. | Description | Part No. | Q'ty | Remark |
|---------------|----------------------|--------------|------|----------|
| 27 | Fastener | 6525300210 | 2 | |
| 28 | Plate Ground | 6065104510 | 1 | |
| 29 | Top Cover, Black | 046121002111 | 1 | |
| 29 | Top Cover, Silver | 046121002113 | | |
| 30 | Chassis Main | 6121608510 | 1 | |
| 31 | Chassis Back, Black | 046102033411 | 1 | Dom. |
| 31 | Chassis Back, Silver | 046102033412 | | Dom. |
| 31 | Chassis Back, Silver | 046102033413 | | Sherwood |
| 31 | Chassis Back, Black | 046102033413 | | Sherwood |
| 32 | Bracket LCD Board | 6123622010 | 1 | |
| 33 | Holder LCD | 6513005410 | 1 | |
| 34 | Filter LCD | 048535036711 | 1 | |
| 35 | Diffuser | 8535038010 | 2 | |
| 36 | Foot | 6715020610 | 4 | |
| 37 | Support P.C. Board | 6528301610 | 2 | |
| 38 | Terminal Antenna | 4408001510 | 1 | Dom.,A |
| 38 | Terminal Antenna | 4408001610 | 1 | Sherwood |
| 39 | Terminal 9P | 4428570090 | 1 | |
| 40 | Terminal 11P | 4428570110 | 1 | |
| 41 | LCD | 2338009917 | 1 | |
| 42 | Switch Slide | 4618008020 | 2 | |
| 43 | Switch Tact | 4658003710 | 12 | |
| 44 | Switch Reset | 4658003610 | 1 | |
| 45 | Lamp | 2528203810 | 2 | |
| Screws | | | | |
| S1 | #2BTC 3x8 ZNB | 8109230083 | 29 | |
| S2 | #2WPT 3x8 ZNY | 8159230081 | 6 | |
| S3 | #2BTC 3x12 ZNY | 8159230121 | 1 | |

Mechanical Parts List(I) (Deck Mechanism Ass'y)

MODEL NAME : TN-21ZSC-857

Model No. : TDD-33R

| No. | Part No | Description | Q'ty | Remark |
|-------|-----------|-------------------------|------|--------|
| 1 | 192114301 | Base Ass'y | 1 | |
| 2 | 19211409 | Switch Actuator | 1 | |
| 3 | 19211408 | Push Button Actuator | 1 | |
| 4 | 19211422 | REC Button Lever | 1 | |
| 5 | 19211423 | Play Button Lever | 1 | |
| 6 | 19211424 | Rew Button Lever | 1 | |
| 7 | 19211425 | FF Button Lever | 1 | |
| 8 | 19211426 | Stop Button Lever | 1 | |
| 9 | 19211427 | Pause Button Lever | 1 | |
| 10 | 19211413 | P Control Spring | 1 | |
| 11 | 19211410 | Pause Lever | 1 | |
| 12 | 19211412 | Pause Lever Spring | 1 | |
| 13 | 19211411 | Pause Stopper | 1 | |
| 14 | 19211414 | Button Lever Spring(A) | 1 | |
| 15 | 192101501 | Chassis Ass'y | 1 | |
| 16 | 19211416 | E Actuator Spring | 1 | |
| 17 | 19211417 | P.S. Lever Spring | 1 | |
| 18 | 15100202 | REC Spring Plate | 1 | |
| 19 | 182101159 | E Kick Lever | 1 | |
| 20 | 19211420 | PR Stopper | 1 | |
| 21 | 19211421 | REC Button Lever Spring | 1 | |
| 22 | 19211415 | Button Lever Spring(B) | 1 | |
| 23 | 640101149 | Leaf Switch MSW - 1541T | 1 | |
| 24 | - | Not used ! | | |
| 25 | 19210314 | Head Panel | 1 | |
| 26 | 19210306 | Head Base | 1 | |
| 27 | 19210303 | Panel P Spring | 1 | |
| 28 | 18210308 | EH Spring | 1 | |
| 29 | 18210307 | Azimuth Spring | 1 | |
| 30 | 19211418 | M Control Spring | 1 | |
| 31 | - | Not used ! | | |
| 32 | 192104301 | Pinch Roller Arm Ass'y | 1 | |
| 33/34 | - | Not used ! | | |
| 35 | 19212604 | Sensing Lever | 1 | |
| 36 | 19212605 | Gear Plate Spring | 1 | |
| 37 | 192126501 | Gear Plate Ass'y | 1 | |
| 38 | 19212602 | Carn Gear | 1 | |
| 39 | - | Not used ! | | |
| 40 | 192107301 | RF Clutch Ass'y | 1 | |
| 41 | 19210703 | RF Belt | 1 | |
| 42 | - | Not used ! | | |
| 43 | 192109303 | FLYWHEEL Ass'y | 1 | |
| 44 | - | Not used ! | | |
| 45 | 18211070 | FF Gear | 1 | |
| 46 | 18291010 | Back Tension Spring | 1 | |
| 47 | 192105302 | Supply Reel Ass'y | 1 | |
| 48 | 192105301 | Take up Reel Ass'y | 1 | |
| 49 | 19210506 | Senser | 1 | |
| 50 | - | Not used ! | | |
| 51 | 18211289 | Motor Bracket | 1 | |
| 52 | - | Not used ! | | |
| 53 | 19211202 | Motor Coller Screw | 2 | |
| 54 | 19211201 | Motor Pulley | 1 | |
| 55 | 19210904 | Main Belt | 1 | |
| 56 | 19211203 | MB Screw | 1 | |
| 57 | - | Not used ! | | |
| 58 | 19211302 | Eject Slide Lever | 1 | |
| 59 | 18291001 | Pack Spring | 1 | |
| 60 | 18211069 | Record Safety Lever | 1 | |
| 61 | - | Not used ! | | |
| 62 | - | RP Head SS15R - AA4NI | 1 | |

| No. | Part No | Description | Q'ty | Remark |
|-------|-----------|--|------|--------|
| 63 | - | E Head LE15A - C1 | 1 | |
| 64 | - | Motor EG530KD - 2B | 1 | |
| 65 | | | | |
| 66 | 91790000 | C Tapping Screw M2x3 | 2 | |
| 67 | - | Not used ! | | |
| 68 | 96790000 | P Tapping Bind Screw M2x5 | 2 | |
| 69 | 99991809 | Tapping Screw(For Camera)M2x4.5 | 2 | |
| 70 | 91150000 | ⊕Bind Screw M2x3 | 1 | |
| 71 | 98210000 | ⊕⊖Cap Screw M2x8 | 2 | |
| 72 | 99220000 | Azimuth Screw M2x7 | 1 | |
| 73/74 | - | Not used ! | | |
| 75 | 94220000 | P Washer Cut 1.2x3.8x0.3 | 1 | |
| 76 | 99990313 | P Washer Cut 1.45x3.8x0.5 | 1 | |
| 77 | 97860000 | P Washer 2x3.5x0.3 | 1 | |
| 78 | - | Not used ! | | |
| 79 | 99991402 | Slapping Screw (For Camera)M2x8(Guice) | 2 | |
| 80 | 18213106 | B Frame(S) | 1 | |
| 81 | 18213107 | Operation Lever | 1 | |
| 82 | 18293103 | Button Lever Shaft | 1 | |
| 83/84 | - | Not used ! | | |
| 85 | 640101125 | Leaf Switch MSW - 1664 | 1 | |
| 86 | 96610000 | Cap Screw 2x5 | 1 | |

Mechanical Parts List(II) (Deck Mechanism Ass'y)

MODEL NAME : TN-51S-149

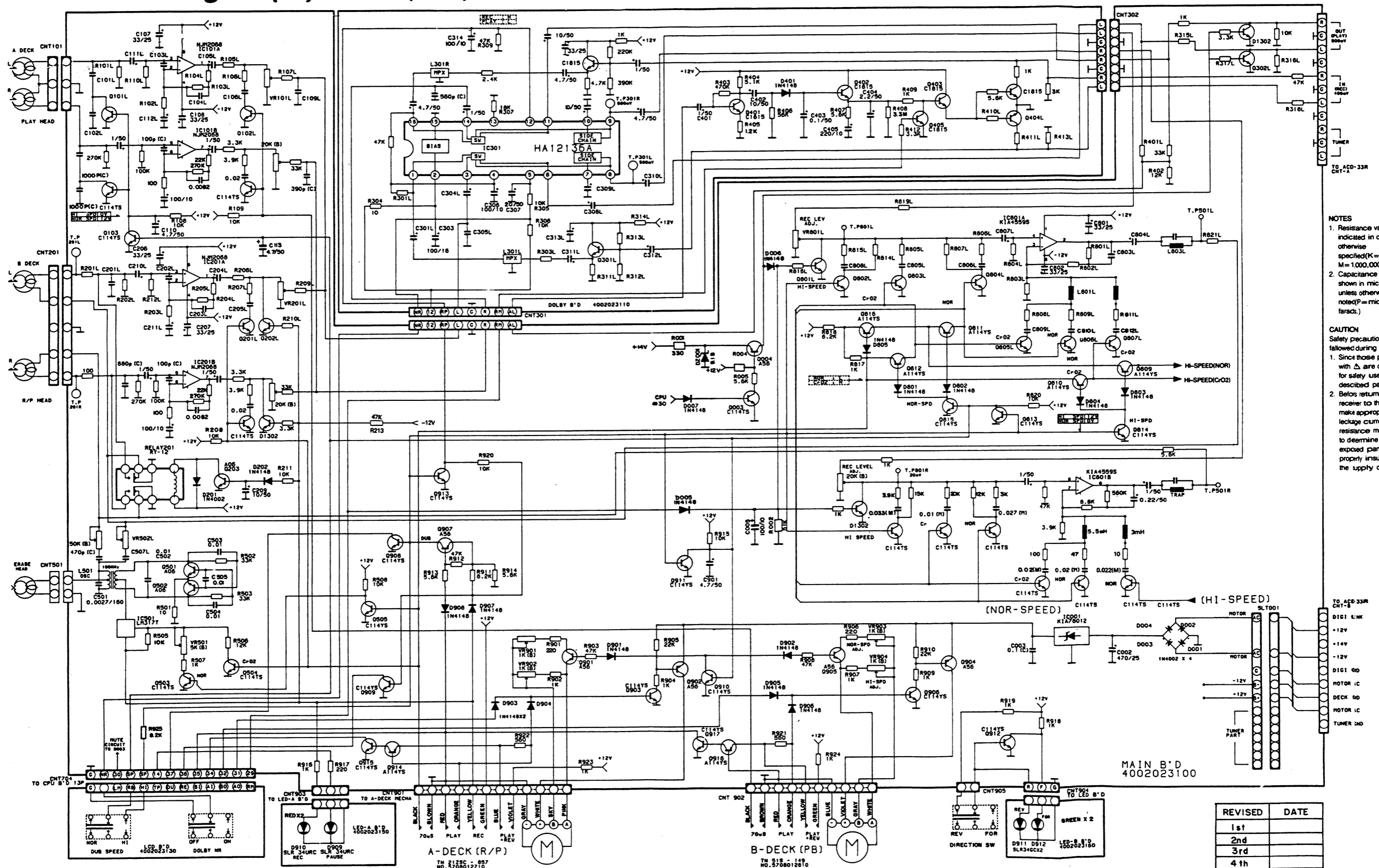
Model No. : TDD-33R

| No. | Part No | Description | Q'ty | Remark |
|-----|---------------|--------------------------|------|--------|
| 1 | 185101301 | Chassis Ass'y | 1 | |
| 2 | 18210115 | Pause Lever | 1 | |
| 3 | 18210116 | Pause Lever Spring | 1 | |
| 4 | 18291006 | Pack Spring Plate | 1 | |
| 5 | 18512001 | Auto Lever(F) | 1 | |
| 6 | 18512003 | Auto Lever(R) Spring | 1 | |
| 7 | 18512005 | Spring Stopper | 2 | |
| 8 | 18512002 | Auto Lever(R) | 1 | |
| 9 | 18512004 | Auto Lever Spring(F) | 1 | |
| 10 | 18511703 | Eject Slide Lever | 1 | |
| 11 | 18511702 | Eject Slide Lever Spring | 1 | |
| 12 | 18211223 | P.K. Coller Screw(A) | 3 | |
| 13 | 185118301 | SUB Chassis Ass'y | 1 | |
| 14 | 18510301 | Turn Over Arm | 1 | |
| 15 | 18510302 | Turn Over Spring | 1 | |
| 16 | 185102501 | Button Base Ass'y | 1 | |
| 17 | 185105301 | T. Gear Arm(F)Ass'y | 1 | |
| 18 | 18510504 | T. Gear Arm(F)Spring | 1 | |
| 19 | 18510503 | T.CAM Gear(F) | 1 | |
| 20 | 185106301 | T.Gear Arm(R)Ass'y | 1 | |
| 21 | 18510603 | T. Gear Arm(R) Spring | 1 | |
| 22 | 18510602 | T.CAM Gear(R) | 11 | |
| 23 | 18510217 | Slide Plate | 1 | |
| 24 | 185102301 | Lock Actuator Ass'y | 1 | |
| 25 | 18510220 | Lock Release Spring | 1 | |
| 26 | 185102302 | Switch Actuator Ass'y | 1 | |
| 27 | 185102309 | Mode Button Ass'y(S) | 1 | |
| 28 | 18510222 | Button Lever Spring | 3 | |
| 29 | 18510232 | Play Button Lever(S) | 1 | |
| 30 | 18510235 | FF Button Lever R(S) | 1 | |
| 31 | 18510224 | FF Button Lever Spring | 2 | |
| 32 | 18510234 | FF Button Lever F(S) | 1 | |
| 33 | 18510231 | Stop Button Lever(S) | 1 | |
| 34 | 185102304 | Program Button Lever(S) | 1 | |
| 35 | 18510227 | Pull Arm Spring | 1 | |
| 36 | 18510221 | Stop Button Lever Spring | 1 | |
| 37 | 18510408 | Relay Plate | 1 | |
| 38 | 18511602 | FF Switch Plate | 1 | |
| 39 | 18510410 | R.C. Spring | 1 | |
| 40 | 18511805 | Auto Control Arm(F) | 1 | |
| 41 | 18511807 | Control Coller | 2 | |
| 42 | 18511806 | Auto Control Arm(R) | 1 | |
| 43 | 18510401 | Head Panel | 1 | |
| 44 | 18510402 | R.C. Plate | 1 | |
| 45 | 18510409 | R.C. Plate Spring | 1 | |
| 46 | 18510404 | H.P. Coller | 1 | |
| 47 | 18510403 | Tape Guide | 1 | |
| 48 | 18510405 | Head Spring Plate | 1 | |
| 49 | MR35P - KF243 | P. Head | 1 | |
| 50 | 64030204 | Slide Switch R663167 | 1 | |
| 51 | 18511601 | Switch Bracket | 1 | |
| 52 | 18510406 | Pinch Roller Spring(F) | 1 | |
| 53 | 18510407 | Pinch Roller Spring(R) | 1 | |
| 54 | 185109501 | Pinch Roller(F) Ass'y | 1 | |
| 55 | 185110501 | Pinch Roller(R) Ass'y | 1 | |
| 56 | 185111301 | Reel Plate Ass'y | 1 | |
| 57 | 185111501 | Reel Ass'y | 2 | |
| 58 | 640101151 | Leaf Switch MSW - 1290CV | 1 | |
| 59 | 640101125 | Lief Switch MSW - 1664 | 1 | |
| 60 | 185107301 | FF Gear Arm(F) Ass'y | 1 | |
| 61 | 18510703 | FF Gear | 2 | |

| No. | Part No | Description | Q'ty | Remark |
|-----|-----------------|---------------------------------|------|--------|
| 62 | 185108301 | FF Gear Arm(R) Ass'y | 1 | |
| 63 | 18510705 | FF Gear Arm Coller | 2 | |
| 64 | 18510704 | FF Gear Arm Spring(F) | 2 | |
| 65 | 185112501 | Flywheel Ass'y | 2 | |
| 66 | 182112142 | Main Belt | 1 | |
| 67 | 18511409 | Motor Bracket | 1 | |
| 68 | 18511406 | P.Kick Lever | 1 | |
| 69 | 18211215 | P.Kick Lever B | 1 | |
| 70 | 18211224 | P.K. Coller Screw B | 1 | |
| 71 | 18211266 | Motor Rubber | 1 | |
| 72 | 18211202 | M. Coller Screw | 3 | |
| 73 | 182112109 | ANTI - Vibration Felt | 1 | |
| 74 | 18511403 | Motor Pulley | 1 | |
| 75 | EG - 530KD - 2B | Motor | 1 | |
| 76 | 18511404 | P. Kick Lever Spring | 1 | |
| 77 | 18213107 | Operation Lever | 6 | |
| 78 | 18513101 | Button Frame(S) | 1 | |
| 79 | 18293103 | Button Lever Shaft | 1 | |
| 80 | 18510225 | Lock Actuator Spring | 1 | |
| 81 | 18510226 | Switch Actuator Spring | 1 | |
| 82 | 77770013 | P Washer 1.75x4x0.3 | 2 | |
| 83 | 91780000 | C Tapping Screw M2x3(Special) | 2 | |
| 84 | 96740000 | P Tapping Screw M2x6 | 4 | |
| 85 | 98760000 | P Washer Cut 2.1x5x0.5 | 3 | |
| 86 | 90790000 | ⊕Tams Screw M2x6 | 2 | |
| 87 | 96950000 | Camera S Tapping Screw M1.7x4 | 3 | |
| 88 | 99992007 | Screw M2x4.5 | 2 | |
| 89 | 97860000 | P Washer 2x3.5x0.3 | 2 | |
| 90 | 98890000 | P Washer 2.1x3x0.3 | 2 | |
| 91 | 99990309 | P Washer 1.45x4x0.5 | 2 | |
| 92 | 91800000 | ⊕C Tapping Screw M2x4 | 4 | |
| 93 | 96920000 | Camera S Tapping Screw M1.7x2.5 | 1 | |
| 94 | 94210000 | P Washer Cut 1.2x3x0.25 | 8 | |
| 95 | 96930000 | Camera S Tapping Screw M1.7x3 | 3 | |
| 96 | 98680000 | P Washer Cut 1.2x3x0.4 | 2 | |
| 97 | 99990009 | P Washer 3x8.5x0.13 | 2 | |
| 98 | 99991301 | Camera S Tapping Screw M1.7x8 | 6 | |
| 99 | 99991302 | Camera S Tapping Screw M2x9 | 2 | |
| 100 | 91810000 | C Tapping Screw M2x5 | 1 | |
| 101 | 18511804 | RC Arm | 1 | |
| 102 | 96610000 | Cap Screw 2x5 | 1 | |

Schematic Diagram(I) TDD-33R(DECK)

Model No. : TDD-33R



- ### NOTES
1. Resistance values are indicated in ohms unless otherwise specified (K=1,000 M=1,000,000)
 2. Capacitance values are shown in microfarads unless otherwise noted (P=micro micro farads.)

CAUTION

Safety precautions to be followed during servicing

1. Since those parts marked with Δ are critical for safety use the described parts list.
2. Before returning the receiver to the customer make appropriate leakage current or resistance measurement to determine that exposed parts are properly insulated from the supply circuit.

| REVISED | DATE |
|---------|------|
| 1st | |
| 2nd | |
| 3rd | |
| 4th | |
| 5th | |

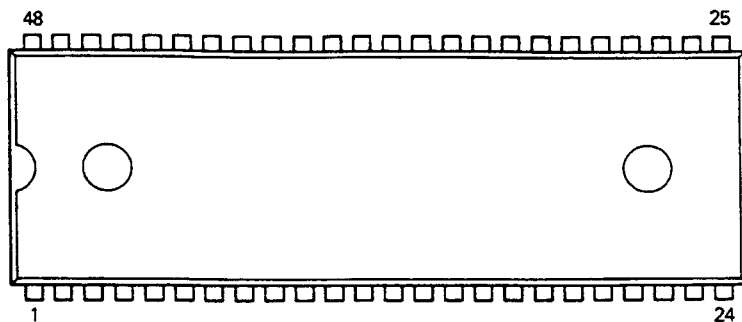
Model No. : TDD-33R



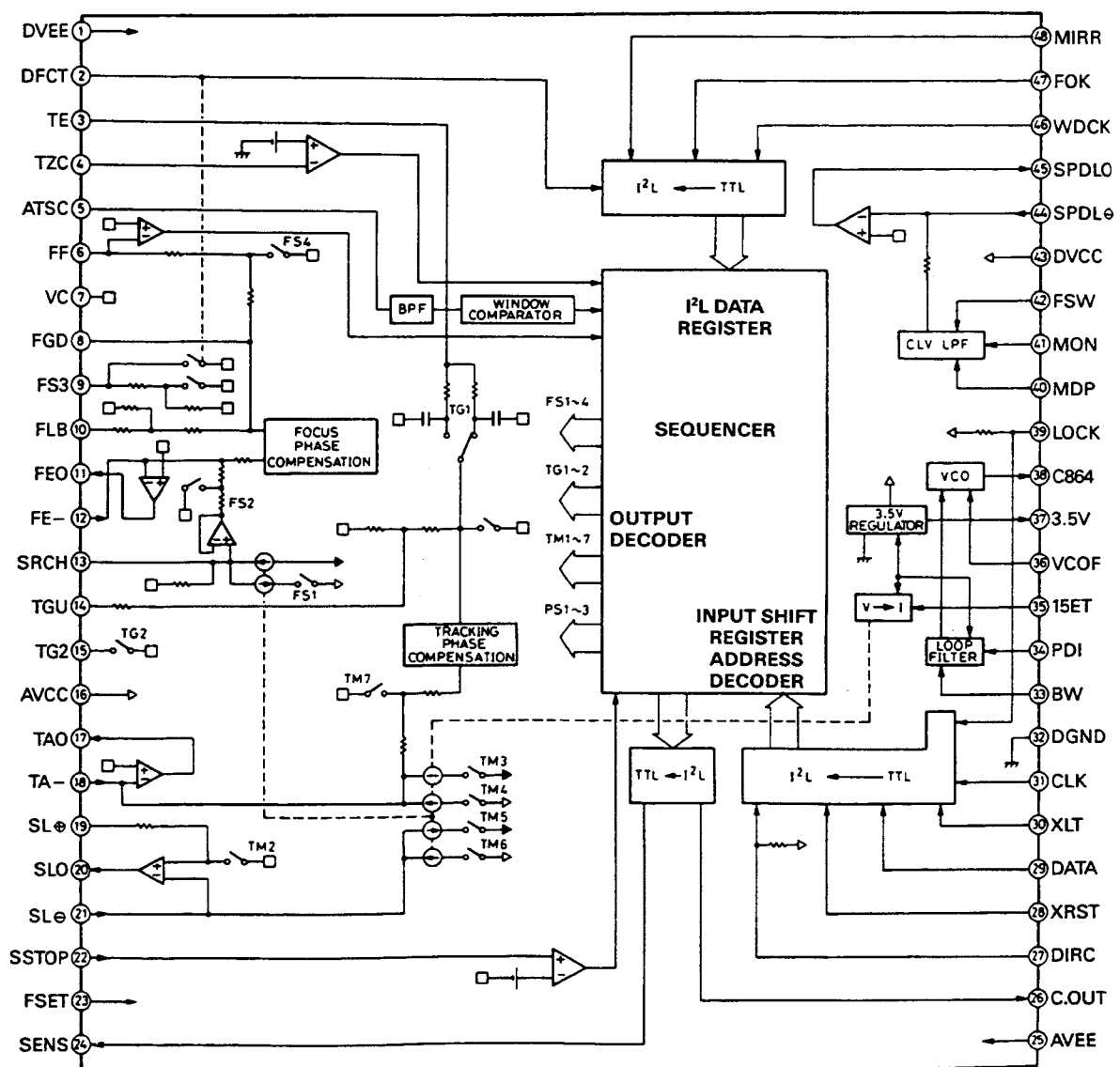
Semiconductor Lead Identification & Internal Diagram

P-33R(AMP,CDP,TUNER,DECK)

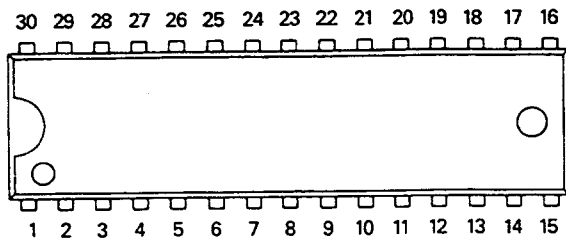
CXA1082,SSP : IC102



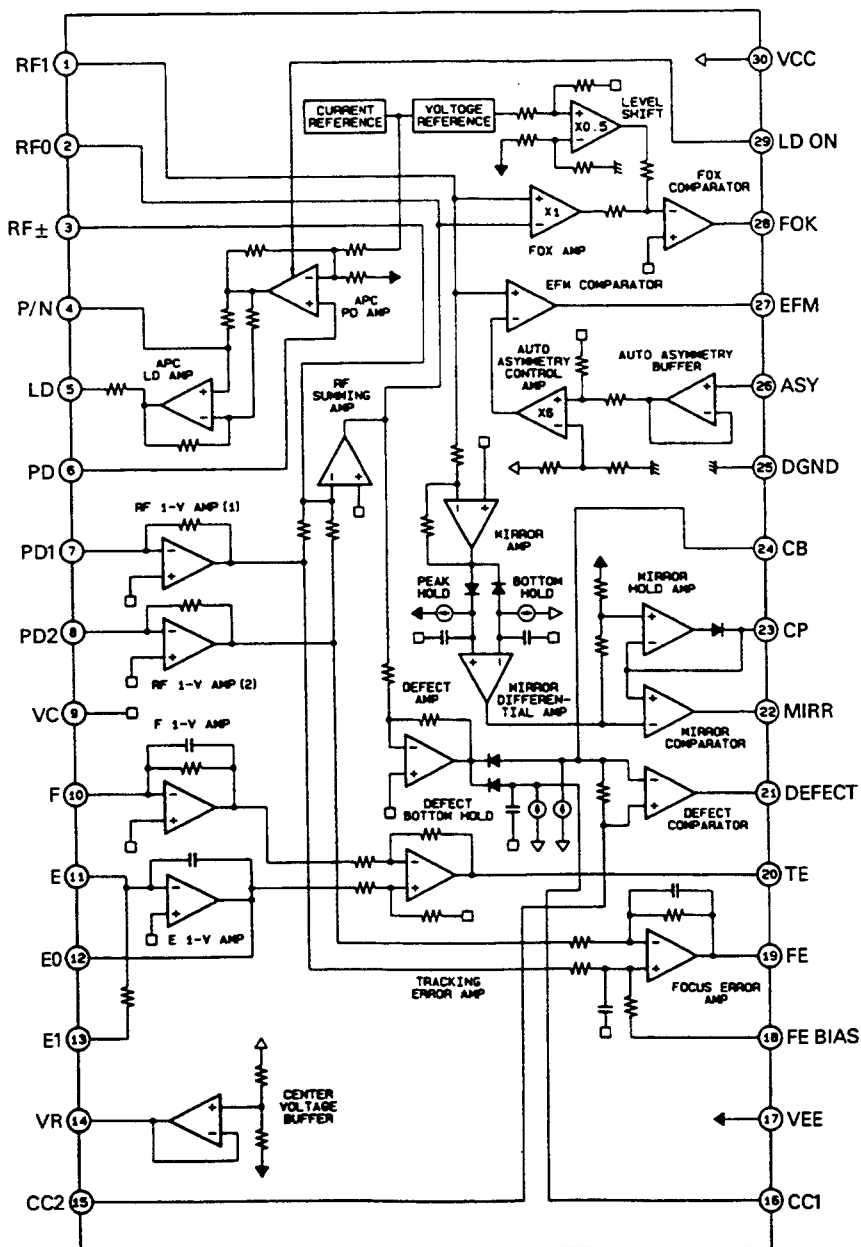
Servo Signal Processor



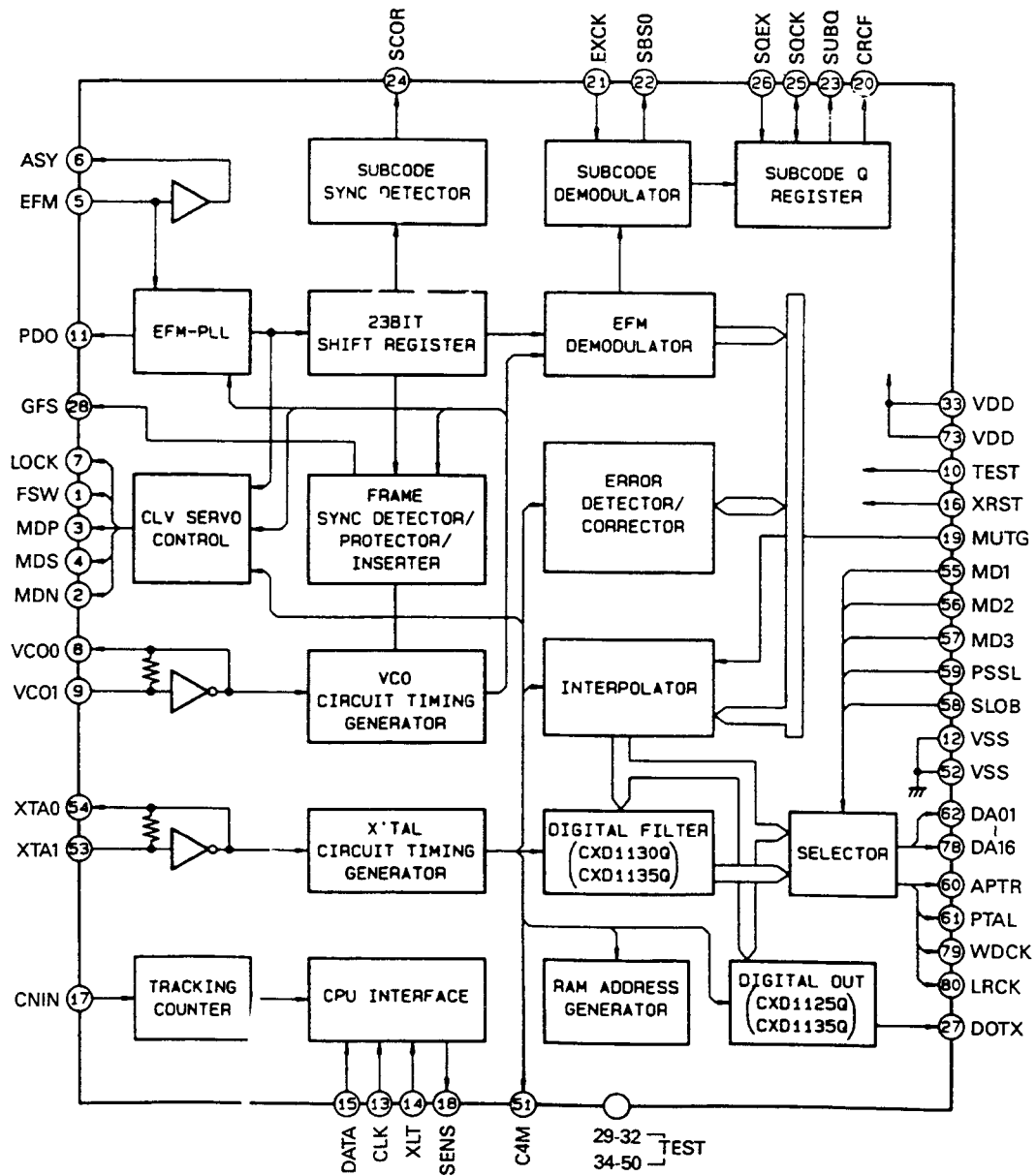
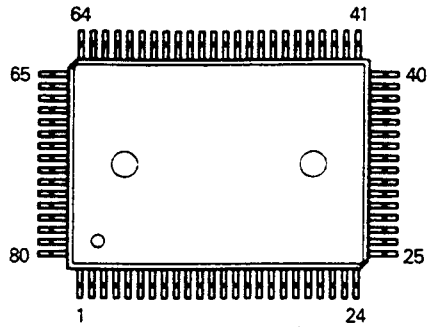
CXA1081, RF AMP : IC101



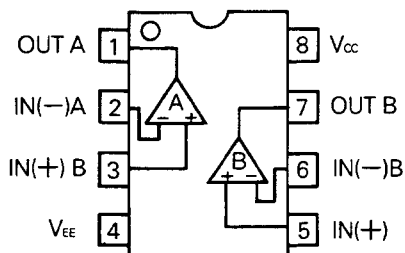
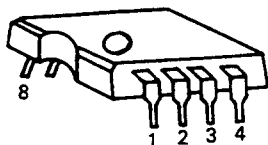
RF Amp.



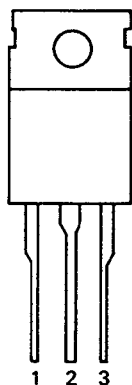
CXD1167Q,DSP : IC103



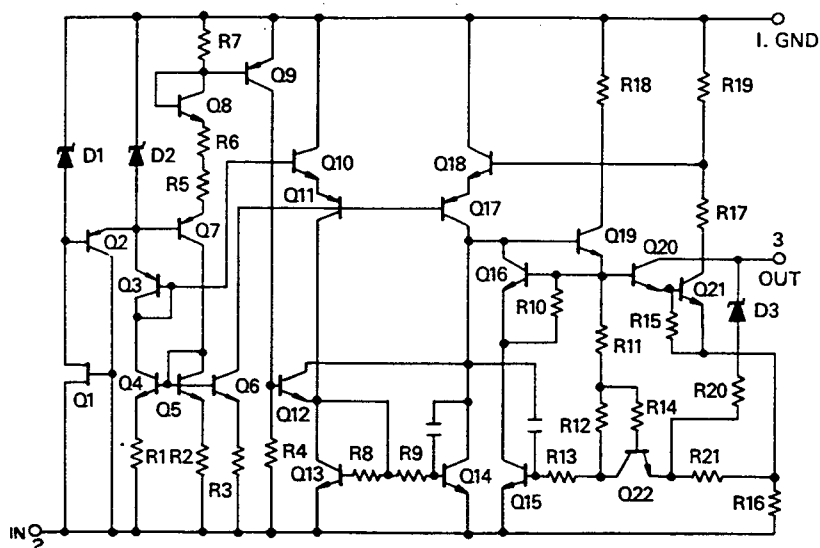
MC4558,OP AMP : IC107
 NJM4560,OP AMP : IC106



MC7905 : IC001

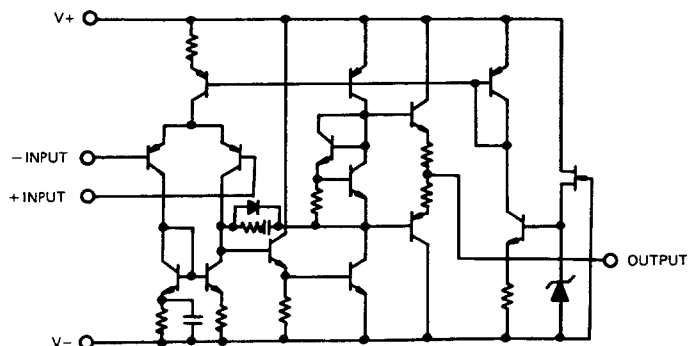


REGULATOR

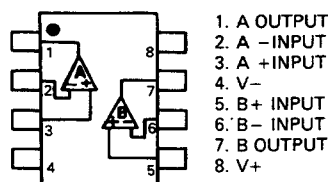


NJM2068D(PB AMP) : IC101,IC201

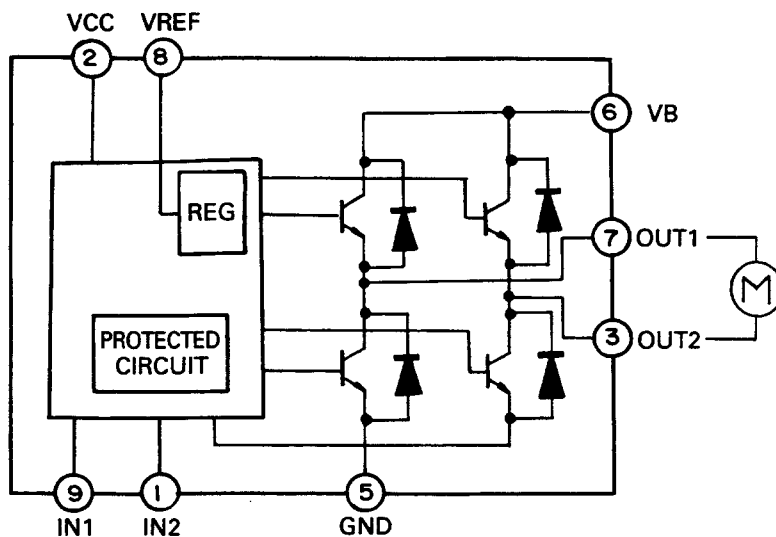
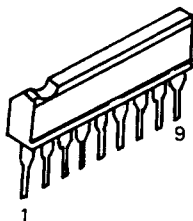
Equivalent Circuit



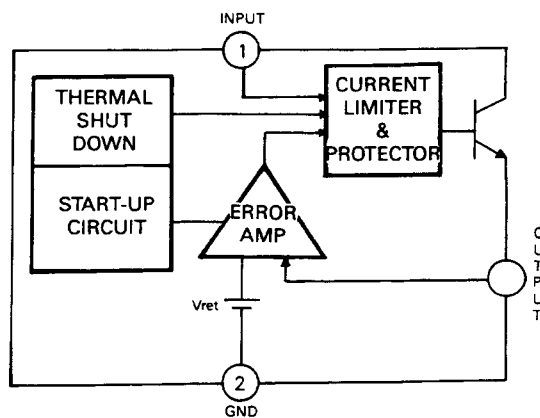
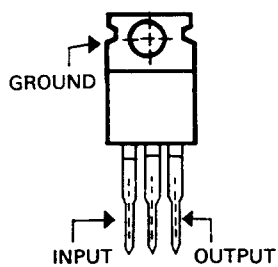
(TOP VIEW)



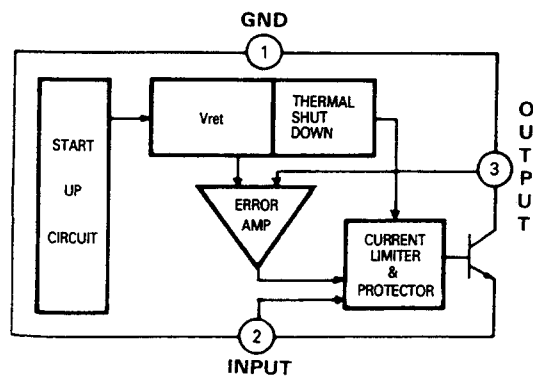
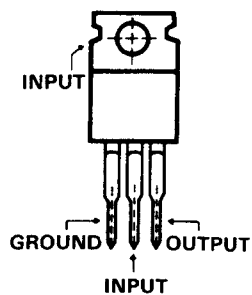
TA7291S(MOTOR CONTROL) : IC201



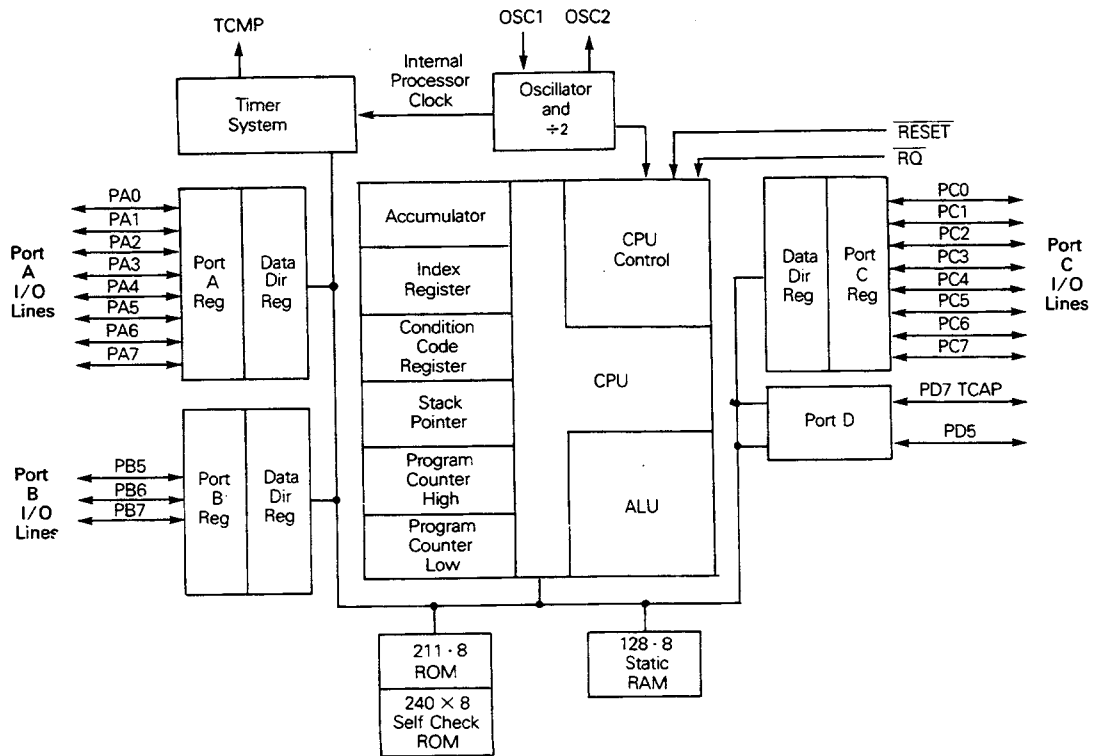
**GD7812 : IC701,IC704
GD7805 : IC703,IC705**



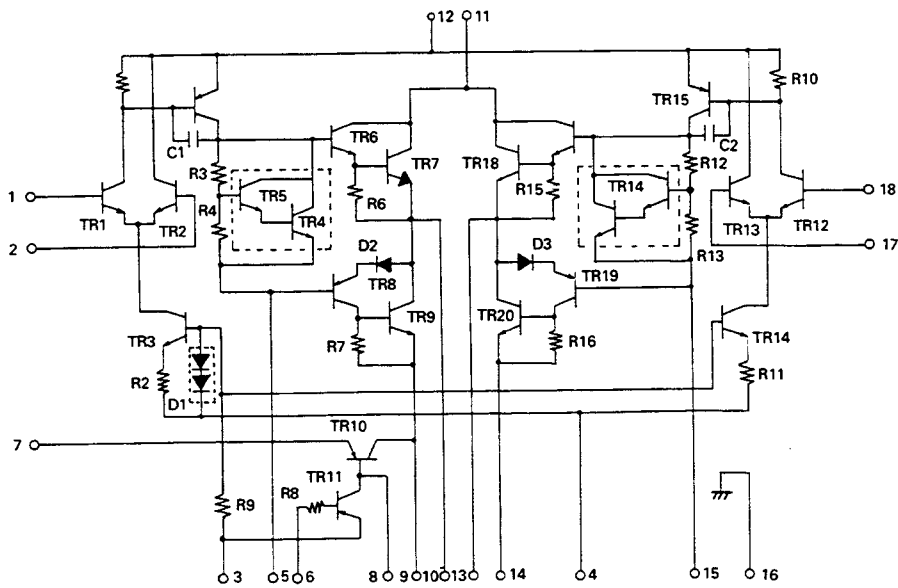
GD7912 : IC704



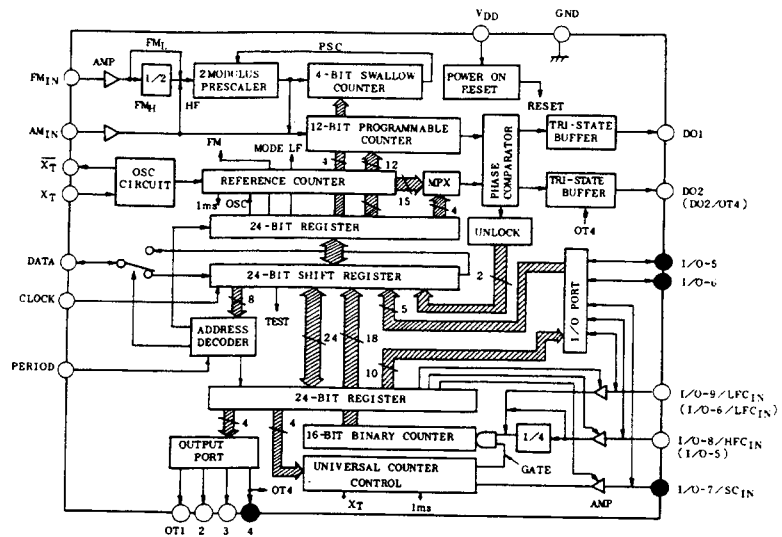
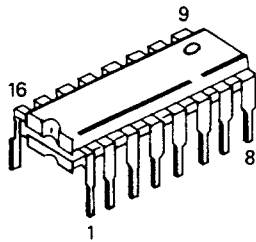
DWP112CPU : IC501



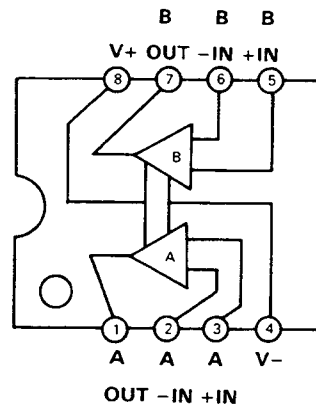
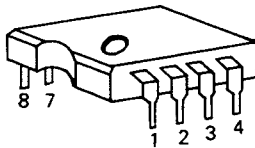
STK4142 II : IC401



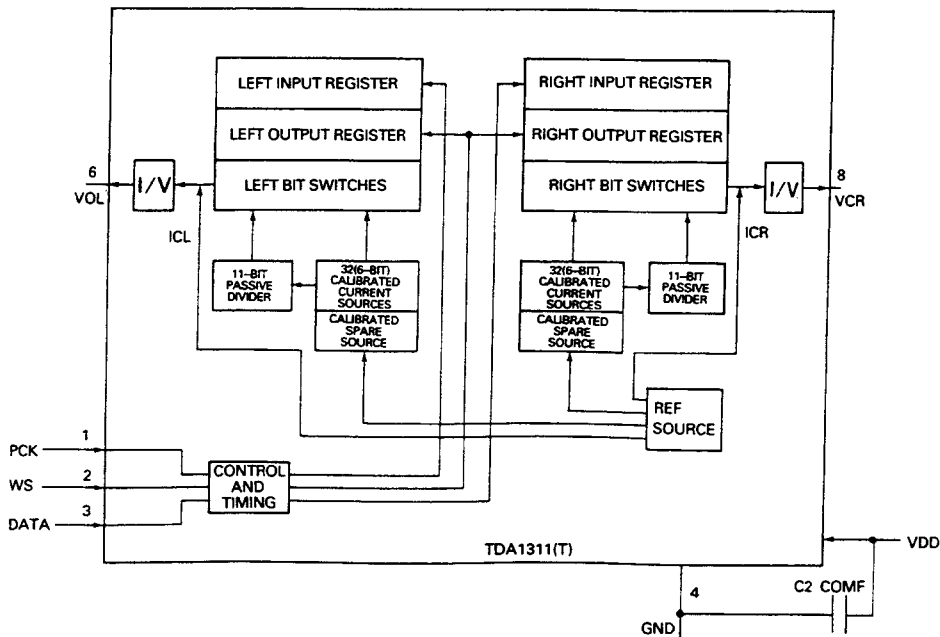
TC9216P(PLL) : IC602



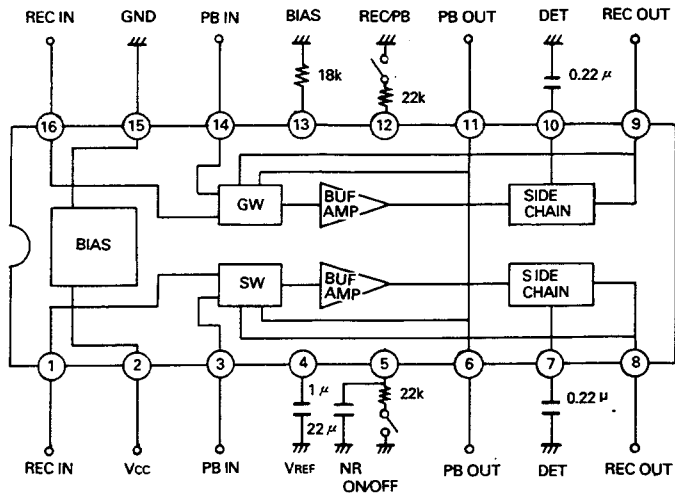
KIA4559S(REC AMP) : IC801



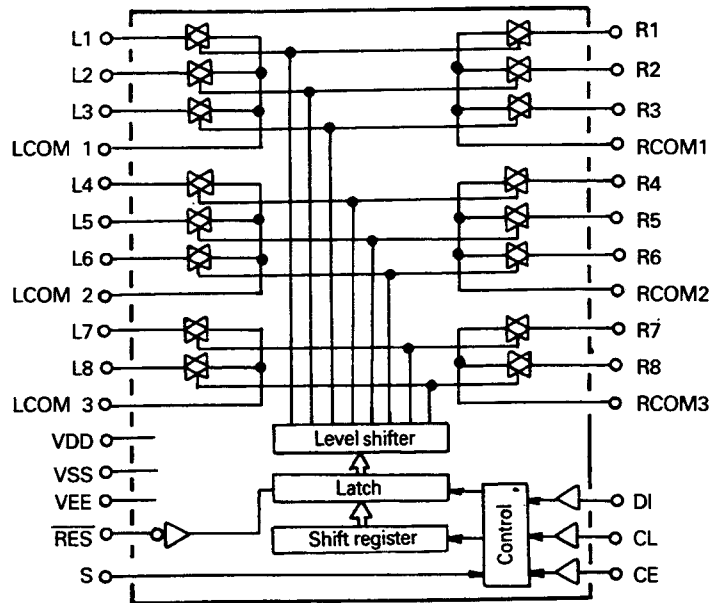
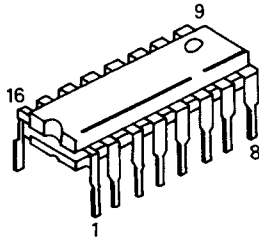
TDA 1311,DAC : IC105



MA12136A : IC301

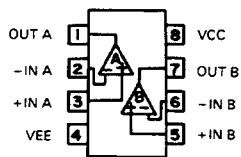


LC7821 : IC101

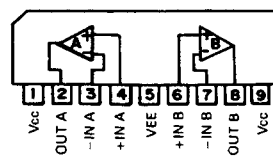


KIA4559P(DUAL OP AMP) : IC102-IC106,IC202,IC301,IC601

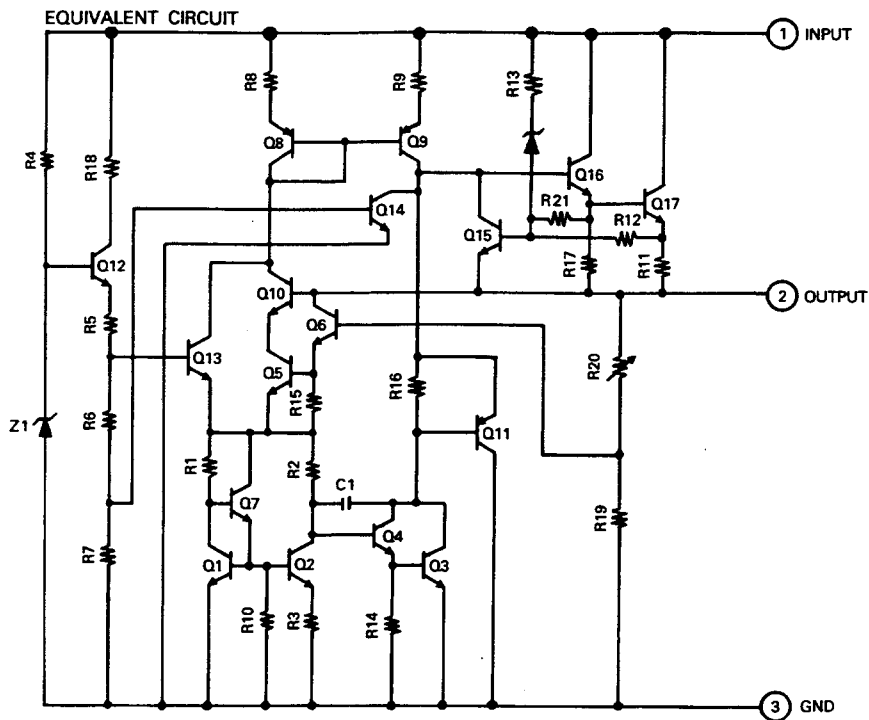
KIA 4559P, KIA 4559F



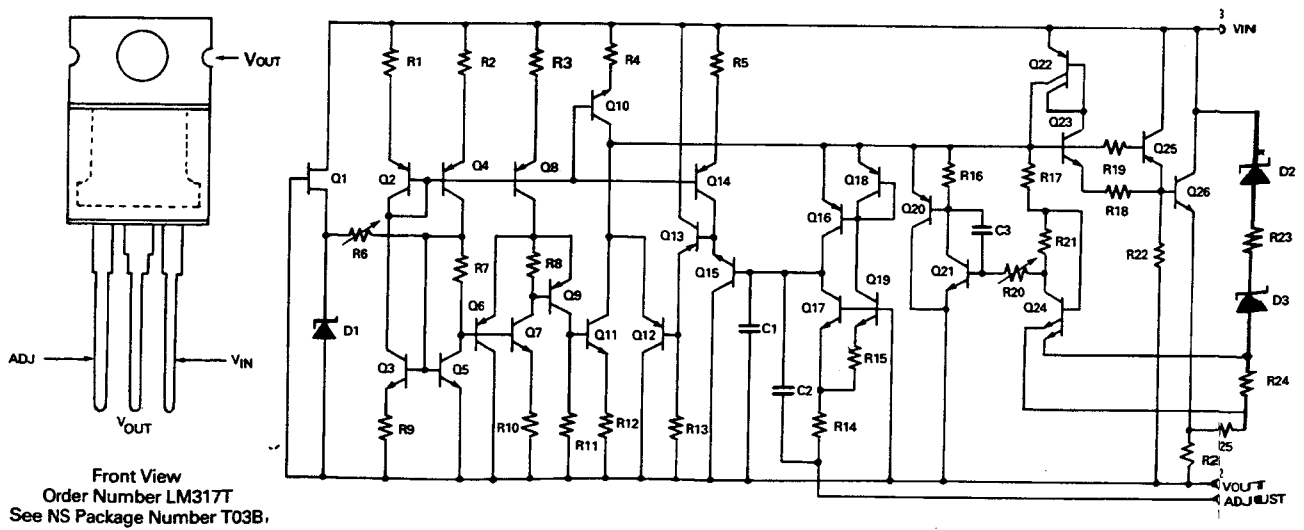
KIA 4559S



KIA78012AP(Regula502) : IC001



LM317(Regula502) : IC501



LA185IN(IF+MPX) : IC601

